

**Vital Variables, Feminist Consciousness, and Insider/Outsider Status in
Social Action Research: Confessions From a Feminist Empiricist Project**

Joyce McCarl Nielsen, University of Colorado

Robyn Marschke, University of Colorado

Elisabeth Sheff, University of Colorado

Patricia Rankin, University of Colorado

275 UCB, Boulder, CO 80309-0327

Phone 303.492.8571

joyce.nielsen@colorado.edu

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Abstract

In this backstage tour of a feminist social action research project, we focus on consequential, if routine, methodological tensions that are usually unacknowledged. These are described under three categories: vital variables, feminist consciousness, and insider/outsider status. First, quantitative analyses of salary data show that theoretically vital variables are obscured by university record-keeping and routinely excluded from otherwise refined regression analyses, making interpretation of regression results problematic. We launch a series of projects designed to embellish, contextualize, and better interpret these data. Second, feminist consciousness is both a descriptor of the researchers and a dependent variable in this project. Our attempt to measure feminist consciousness juxtaposes feminist empiricist and postmodern thinking, exposing their epistemological contradictions in acutely experiential ways. Third, we explain how our actions as feminist academics with both inside and outside status in the university reveal a fine line between challenging and reinforcing institutional power. These various experiences share a theme of feminist thinking having surpassed conventional methods. We cautiously underscore the value of feminist empiricism even as we describe it as a research paradigm in transition.

Vital Variables, Feminist Consciousness, and Insider/Outsider Status in Social Action Research: Confessions From a Feminist Empiricist Project

It was a feminist's dream project. We were invited to be part of a larger research team whose goal was to

...permanently transform the University...[this project] is not designed to be a remedial program...We do not want to teach women how to play the game by the existing rules—we want to change the rules.ⁱ

Echoing the institutional transformation theme of the funding agency, the proposal outlines a variety of strategic actions for change. These include leadership workshops, mentoring/coaching, guest speakers, networking opportunities, course development, postdoctoral and graduate student fellowships, research appointments, and select faculty administrative appointments. The purpose of these interventions is to change university policies, structures, and climates, more or less permanently, in ways that will

increase the number of women in the sciences, technology, engineering, and math (STEM) disciplines. Although the NSF-funded project targets the advancement of women in STEM disciplines, it recognizes that such progress is accomplished only with the participation and involvement of all faculty in all disciplines. Thus the strategic interventions listed above are being implemented at all levels of the system and in all units on campus.

Our assignment was to evaluate the long-term impact and efficacy of the various intervention strategies.ⁱⁱ As evaluators, our methodological question was, “If the project is successful, how would we know it?” Or, more to the point, how would we convince others that the project itself (rather than external forces or normal growth and development) generated the desired changes? We initially conceptualized this task in relatively straightforward and conventional terms, as outlined in Figure 1. We would monitor major indicators of women’s status such as: (1) the earnings differential between male and female faculty; (2) the number of women in STEM departments; and (3) the general climate as perceived by teaching and research faculty. The latter includes feminist consciousness (defined as having awareness of and opposing gender-related inequities) on the part of faculty and administrators. We would do this both before (at the beginning of the project) and after (toward the end of the five year period) to determine long-term effects of project initiatives.ⁱⁱⁱ In other words, we hypothesized that the major indicators listed above, along with others outlined in Figure 1, constituted dependent variables in a cause-and-effect or pretest/posttest model.

FIGURE 1 HERE

The before-and-after research plan diagrammed in Figure 1, using primarily quantitative measures, though not perfect, seemed rather elegant and parsimonious in the best tradition of positivist social science (Campbell and Stanley 1966). That, anyway, was the plan. This paper is a report of what actually happened.

We began the project as feminist empiricists using traditional methods of observation and analyses (e.g. longitudinal and statistical analyses of aggregate data, survey instruments, hypothesis testing). Because the proposal was written by a physicist and the project funded by the NSF, we assumed that a quantitative, quasi-experimental approach would be well-received. Nevertheless, it was not long before we began asking feminist-inspired critical questions about these same methods and their results. The first section of the paper, then, describes how a series of quantitative analyses of salary data led to a search for interpretive context and for what we call vital variables. We then describe efforts to measure feminist consciousness as a theoretically relevant and major indicator of the campus climate using standard survey instruments. We conclude that feminist thinking about feminist consciousness and similar constructs has outpaced available methods.

Finally, we come to terms with what had been an implicit distinction between the action and evaluative aspects of the project, realizing that as researchers we were indeed very much a part of the action itself. As feminists

successfully working within the university and as agents of social change, our perspective has both insider and outsider elements. We discuss the advantages and disadvantages of this dual status and two other issues related to social action research, obtrusiveness and resistance. The concluding section describes several ways in which feminist empiricism is in transition in the project.

The report is roughly chronological, documenting a process of theoretical and methodological paradigmatic shifts cutting across different feminist perspectives. Throughout this “backstage” tour, we focus on seemingly minute and mundane yet consequential tensions that effect everyday decision-making. Our work confirms and elaborates feminist empiricism as subversive, transitional, emergent, and revolutionary.

Vital Variables

In our regression analyses^{iv} of gender pay gaps among faculty at this university, initially large gender differences in salary diminished after controlling for—i.e. taking into account—the effects of academic discipline, tenure status, seniority, rank, and age. Most regression models, ours included, rely on variables such as these because they are readily accessible in spite of the fact that they are often inadequate or controversial (Bellas 1992; Becker and Toutkoushian 1995; Boudreau, Sullivan, Balzer, Ryan, Yonker, Thorsteinson, and Hutchinson 1997; Haignere 2002; Barbezat 2003). Nevertheless, these variables are considered legitimate justification for pay differences as outlined in the 1973 Education Amendments (see Nelson and Bridges 1999).

Using a standard regression model (see “Typical Regression Model Variables” in the bottom of Figure 2), our results show that these “legitimate” variables, of which academic discipline is the most important, account for 72% of the variance^v in salaries. This is called “explained” variance. Results like these are satisfying from a purely quantitative point of view because the R-squared—i.e. the percent of variance in salaries attributed to the variables in the model—is high, but one wants to know more about the 28% *unexplained* variance, which is usually attributed to discrimination (Oaxaca 1973; Barbezat 2002; Oaxaca and Ransom 2002; Toutkoushian and Hoffman 2002).

FIGURE 2 HERE

Further, one wants to know more about the larger context in which salary differences occur. To what extent, for example, do women earn less because they start with lower salaries and/or because they do not negotiate the way men do at the time of hire (DeRiemer, Quarles, and Temple 1982)? Do male faculty enjoy a “housewife bonus” (Bellas 1992)? Does women’s work in the domestic sphere hinder their ability to achieve and be successful in academia? Do women perform more service and spend more time with students than men? Most of these questions were unanswerable with our data because so many variables were omitted or obscured by university record-keeping systems. We dubbed these “vital variables” because of their potential explanatory and generative power (Gergen 2001). (Vital variables, then, are similar to but not exactly the

same as what Foucault [1981] calls subjugated knowledges on the part of the marginalized—that is, knowledges that have been disqualified as inadequate, naïve, low-ranking.) These vital variables are contextual and can be seen as part of researchers' taken-for-granted background assumptions, as independent determinants of salary, and/or as variables that may also be influencing the variables whose measures we do have. Without knowing more about them, regression results seem superficial and even atheoretical.

One also wonders about the particular history of salary setting policies at this university. What have been the effects of various University-wide salary equity adjustments over the years? One wants to know how and why disciplines, which are often segregated by gender, have such large effects on salaries. (Our data show, for example, that average salaries in disciplines that are 80% male are approximately \$10,000 more per year than average salaries in disciplines with 60% male faculty. These and related questions generated a series of investigative projects designed to add context in order to interpret the quantitative salary data. These projects include an historical policy comparison, a longitudinal analysis, a cohort study, and an analysis of demographic inertia.

Historical Policy Comparison. We generated historical context by gathering information on the university's uneven history of programs designed to create gender/race pay equity from 1970 to 2002. This effort is still in progress but we can say that the strategies implemented by the university mirror those used in other universities during this same time period. That is, they used regression statistics to identify outlying cases in the 1970s; a counterpart

method^{vi} in the 1980s, a mixed model in the 1990s, and more sophisticated regression analyses in the 2000s. At the very least, this activity showed that there was enough concern or enough gender and race disparity in salaries that either or both prompted organized action sanctioned by University administrators.

Longitudinal and Cohort Analyses. To explore the issue of whether women simply start with lower salaries than men, which then has a cumulative effect over time, and to examine possible cohort effects in salaries, we looked for data prior to the year 2000 when salary data became available electronically. We found this information in the basement of the main library, recorded inconsistently and unevenly in large notebooks of archived computer printout. Because of the magnitude and messiness of this information—the data were literally “dirty”—we limited this recording to five-year data points, beginning with 1965.

The longitudinal information, combined with the history of pay equity adjustments referred to above, led us to hypothesize cohort effects in salaries. That is, some cohorts of female faculty seemed to fare better salary-wise than others, possibly the result of their being more politically active. For example, female professors hired throughout the 1970s and still at this university are the only women who earn the same or more than their male equivalents. This is illustrated in Figure 3.

FIGURE 3 ABOUT HERE

Another effort to put context into the numbers involved the idea of tracking women who had participated in the university-wide 1980s counterpart salary adjustment processes, and comparing their and their counterparts' current salaries. We thought this would be an opportunity to find out if there were backsliding effects of the adjustments, whether the adjustments corrected problems over time, and to look at race/ethnicity by gender (all women and minority faculty were involved). Alas, we discovered that only a handful of the white women and minority faculty from the 1980's counterpart studies were still at the University, and some had forgotten who their counterparts were. Further, many of the counterparts had retired, died, or left by 2002, the first year of our study. Records of the counterpart process were nowhere to be found though we did make extensive formal and informal inquiries.

Demographic Inertia Analysis. With the same longitudinal data set, we were able to expand our analysis of the distribution of women faculty over time. Specifically, we were able to speculate about possible long-term effects of demographic patterns on the gender composition of the faculty population (Hargens and Long 2002). This analysis of demographic inertia generated population pyramids^{vii} that can be used to make the case for an interventionist strategy regarding the recruitment, retention, and hiring of women faculty. See Figure 4 for graphic display of the slow pace of change even when a good number of new faculty hires are female. These results and their interpretations are the subject of a forthcoming paper (Author et al., "Demographic Inertia and the Gender Composition of University Faculty").

FIGURE 4 ABOUT HERE

To return to the issue of quantitative salary differentials, we underscore the lack of coherence between the theoretical and methodological literatures on the earnings gender gap. Theories regarding pay equity are well developed. They range from explanations based on economic to sociological processes (Barbezat 2002; Orenstein 2002); from employer to employee behaviors (Cohn 2000; Reskin 2000; Jacobs 2003; Padavic and Reskin 2002); and from individual to structural and/or organizational forces operating in the workplace (Bellas 1992; Glazer-Raymo 1999; Nelson and Bridges 1999; Kulis, Sicotte, and Collins 2002). Yet empirical studies rarely investigate the full range of factors discussed by these theories and, instead, feature refined regression analyses using easily quantifiable and available variables similar to those we initially examined.

These regression studies therefore fail to include the full scope of theoretically designated variables. To fully examine earnings differentials, one wants to not only know more about structural features of the workplace setting itself—e.g., demographics, discipline differences, market factors, gate-keeping practices (Reskin 1988)—but also more about the individuals in question. One wants to know about women’s and men’s productivity, their access to collegial networks, tenure clocks, and even more about what are usually considered domestic sphere variables—e.g., marital status, number of children, division of labor within the household, etc. And, of course, one needs to know how these

different dimensions work together. A more complete model that shows vital variables is illustrated in Figure 2. We say this because despite increased awareness and public attention to salary issues, there has not been much nationwide change in the last 50 years in the gendered division of labor by sex, organization of paid work, or distribution of wealth and poverty (Padavic and Reskin 2002). Taken as a whole, the larger picture is one of occupational sex segregation and, despite elaborate models and calculations (Lieberson and Carter 1982), the gendered nature of academia—i.e. the significance of occupational gender segregation in and across disciplines—is not fully encapsulated in regression analyses of salary differences.

We seriously considered collecting data on domestic sphere or “second shift” vital variables, but then had second thoughts. We realized that gathering such data might be unethical even if feasible, but more importantly, that emphasizing their inclusion in analyses to explain women’s lower pay would unintentionally reinforce women’s stereotypical association with the domestic. In support of our decision, Sax, Hagedorn, Arredondo, and Dicrisi (2002) show no difference in faculty productivity that can be attributed to family-related factors such as marital status, children, spouse’s job, career interruptions, elderly care, financial stress, marital friction, and hours spent on household or childcare duties. Apparently, women with family responsibilities are finding the time and energy to produce as much scholarly work as peers who do not have family responsibilities. Yet, as Sax et al. (2002) point out, there are widely held

assumptions that family responsibilities compromise faculty careers and, they argue, these affect the recruitment and retention of women faculty.

In the midst of the search for vital variables we realized that in many instances we were deeply involved in regression mode thinking—that is, adding variables to a model in order to increase the explained variance and thus implicitly justifying the salary differences we documented. This was contrary to our original intention, which was to de-legitimize the gender gap in salaries. We realized that strict adherence to regression models limited our thinking and distanced us from the original attraction of the proposal itself, which was to understand in order to effectively challenge, change, and transform rather than to explain and justify. The difference may be subtle, but the experience underscores the importance of maintaining linkages between feminist goals and feminist methods.

To end this section on a positive note and to reinforce the epistemology-method linkage, we introduce the Oaxaca regression technique as an intentionally feminist method. Rather than “explain away” gender pay differences, the Oaxaca technique begins with the assumption that there is a pay gap and then explores how men and women are paid differently even when they share the same characteristics. The technique expands a typical regression model into two equations to analyze salary structures and to calculate estimates of discrimination, taking into account the possibility of different returns on independent variables. For example, our single-equation regression model shows that tenure status is worth \$17,400. The Oaxaca two-equation model

shows that women, if they were paid like men, would earn \$7,100 more than they do now for being tenured. Conversely, men would earn \$23,000 less for tenure status if they were paid according to women's salary structure. In other words, if women were paid like men on this one variable, their overall advantage would be smaller than the disadvantage that men would experience were they paid like women, again on this one variable. This paradoxical effect reflects the fact that the salary structures of the two groups are different, their characteristics are different, and more than one variable is entered into the equations. Using this strategy, our analysis also indicated that women show a higher return than men on some variables (age, administrative experience, and whiteness)—a nuanced finding that is worth further exploration and, ultimately, explanation. We consider this a nice example of expanding feminist methods to enrich understanding of the gendered pay gap.

Feminist Consciousness

We discuss the play of feminist consciousness in this project in two ways. First, as already described, it is an integral part of the research process insofar as the researchers self identify as feminists, such that the project's questions and strategies are informed by various degrees and kinds of feminist thinking. At the same time, feminist consciousness is part of that which is being studied, the substantive subject matter of the project; it is a construct to measure, monitor, and thus operationalize as hypothesized in the original research model.

Figure 1 illustrates our reasoning that if the project strategies work successfully to increase numbers of women in science, decrease the gender gap

in salaries, and/or in other ways improve the climate for women, surely part of that change would be an increase in gender awareness if not feminist consciousness. We speculate that absence of widespread feminist consciousness on the part of university faculty is a factor in the university's current climate and plays some role in women's overall status and well-being. In short, we hypothesized that some degree or level of feminist awareness is an intervening, if not major, dependent variable. That is, independent variables such as leadership workshops and other intervention strategies would generate a measurable increase in feminist consciousness among faculty, and this in turn would lead to more women faculty either through higher retention rates and/or more female hires.

We initially attempted to measure feminist consciousness as one of many indicators of "climate" in a general survey sent to a stratified random sample of instructional and research faculty on campus (oversampled for women). There is a relatively well-developed literature on the measurement of feminist consciousness and related concepts (Cook 1989; Morgan 1996; Reingold and Foust 1998). For our purposes, however, published instruments were either too lengthy or too generic—i.e. developed and created for the general population but not as fitting for faculty in higher education. For example, Morgan's (1996) 10-item short form includes statements (to be endorsed or rejected by respondents) such as, "Doctors need to take women's health concerns more seriously" and, "Women should be considered as seriously as men as candidates for the Presidency of the United States." We needed items tailored for a population of

university faculty. Rather than general attitudes about women in society, we hoped to capture specific thinking about women in academia.

We first conceptualized feminist consciousness in stage theory terms (Schuster and Van Dyne 1985; Tetreault 1985) because of its connection to feminist pedagogy and academic curricular reform (Nielsen and Abromeit 1993). The identified stages of feminist consciousness in this context overlap and are not necessarily sequential. They are: (1) unrecognized absence of women, (2) recognition of women's under-representation, (3) development of bifocal scholarship and critique of the canon, (4) intellectual pursuit of feminist scholarship, and, (5) multifocal scholarship inclusive of all intersections of inequality, difference, and diversity. We translated published questionnaire items into questions about women's status in academia and piloted the resulting instrument among colleagues.

The results were disastrous but informative. Both feminist and non-feminist colleagues were either offended by the questions, did not understand them, became defensive, and/or could not respond without considerably more clarification and context. They criticized both the wording and implied meanings of the items. More importantly, responses to the items did not distinguish between those with no feminist consciousness and those with a highly developed sense of women's situation in academia. This is primarily because early stage items (no awareness of women's invisibility) are superficially similar to later stage items (inclusivity that transcends gender). In this regard, our experience corresponds to that of Kitzinger (1999), who reports similar results with measures

of homophobia. She points out that the meaning of responses to statements like, “Lesbians pose a threat to nuclear family and society as we know it” and “What people do in bed is their own business” are not fixed and not necessarily homophobic, that their interpretation depends on how one responds to other items in the same scale. Both Kitzinger’s and our examples illustrate what happens when multidimensional, context-dependent, perhaps situationally-dependent constructs are measured in paper-pencil format as if they are linear, finite, and categorical.

It became increasingly clear, as it has to others (Snelling 1999), that theoretical distinctions of levels of feminist consciousness such as those implicit in feminist phase theory and others in widely cited categories such as “liberal,” “radical,” “Marxist,” “cultural,” “postcolonial,” “third world,” and the like are too refined, too specific, perhaps too academic, to encapsulate general populations, including university faculties. Even among the authors—all self-labeled feminists albeit from different generations—there were substantial differences in thinking, and these varied by situation.

Experiences such as that described above with pilot survey respondents, combined with acute awareness of our own inconsistent and situationally specific thinking—that was always feminist, sometimes more liberal, sometimes more radical, sometimes postmodern, sometimes ’90s feminist, sometimes ’70s feminist, sometimes all these in one day—confirmed that gender consciousness is multidimensional, dynamic, elusive, contradictory, ambiguous, interactional,^{viii} situationally specific, shifting, and contextual. The contrast between our

seemingly sophisticated and relativist conceptualization of feminist consciousness and the static, flat, two-dimensionality of survey questions was unnerving. It became clear that thinking and conceptualizing about feminist consciousness has outpaced available quantitative measurement strategies. We came seriously close to concluding that measuring gender consciousness in order to assess institutional change, at least with items on a questionnaire, is impossible. At the same time, we realized that identifying, clarifying, and describing such climate changes in complex detail would contribute to eventual understanding of, if not resolving, gender and race issues in the university.

Precisely because of this kind of thinking—social constructionist reminders of the extent to which knowledge is generated by both researchers and respondents—we had initially resisted using survey instruments earlier in the project. (Such misgivings regarding the assumptions of traditional empiricist methods for feminist work are a common theme in the feminist literature). Review of the project as a whole by an external consultant, however, convinced us that some form of “objective” evaluation was necessary to provide benchmarks for the project that would help convince others of its value.^{ix} Just as in the case of the salary survey, the clash between the practical need for usable results and our relativist, contextual, qualified thinking and conclusions created a quandary. A sense of responsibility to the funding agency to provide a usable evaluation of the project intensified the magnitude of the dilemma. Explicit tension between project goals and feminist thinking was palpable. The external consultant reminded us that surveys still work well in the larger context of research. After all,

to some extent we are still playing to a male audience. Although the decision to use a survey format in order to communicate more effectively with the funding agency was a practical one, it also shows how a dominant paradigm works to reinforce itself.

In the end, we abandoned direct measures of feminist consciousness and constructed broader measures of how the campus work environment is perceived. These included, but were not limited, to: access to resources; institutional support of family-related issues; quality of faculty mentoring; quality of department leadership; perceptions of interpersonal relations and collegiality; and support for and commitments to gender and racial/ethnic diversity. The latter included an item about how often one discusses issues of gender/ethnicity/race diversity.

Of course, this did not lead to clean and unambiguous measures. For example, respondents were moved to clarify answers that might otherwise have made them appear less than pro-women. As a case in point, one person who indicated that she does not discuss gender issues at work, and apparently concerned that her response might sound like one who is resistant to gender issues, writes

My department is and has been for years well above the national average for female faculty and females in positions of authority. Therefore, I can say it is not a topic of discussion because we just hire the best person for the job and sometimes those are women. We don't actively look for women, we look for the best. I don't have

discussions of gender issues within my department or in my personal life because there is no need. I was hired initially as an instructor, I have been elected director of a predominantly male public service unit, and I was recently elected to a leadership position in my department—what’s to discuss?

The use of “frequency of conversation about gender issues” as one indicator of gender consciousness, then, did not resolve issues of meaning and interpretation. And, as in the case cited, the value of providing open-ended space to interpret otherwise yes/no or quantitative responses was not lost on us as we bounced back and forth between needing quantitative and seemingly “objective” data and realizing that such data are always already contextual. Contextuality makes data richer but less generalizable—here we see a clash between traditional social science goals and postmodern feminist realities. We stayed with the survey, though, well aware of the contradictions and frustrations inherent to this feminist work. Feminist scholars (e.g. Westkott 1979, Harding 1986) define such tensions as creative and generative as well as uneasy. This now familiar tension intensifies as we move to a discussion of insider/outsider status in social action research.

Social Action Research

Social action research, unlike traditional research, is designed to simultaneously affect and monitor changes in a non-experimental, ongoing social system (Lewin 1948; Whyte 1991). In traditional evaluation research, the intervention and evaluative components are usually separate tasks carried out by

different parties. In this project, we became acutely aware of the significance and effects of being both social change agents and researchers—that is, both generating and monitoring change. In keeping with the backstage story, we highlight three issues relevant to this project: insider/outsider status, obtrusiveness, and resistance to the research itself.

Insider/Outsider Status. There is considerable documentation and description of women's and others' dynamic, conflicted social positioning and resulting disparities between action and consciousness (Du Bois 1997 [1903]; Simmel 1999 [1908]; Beauvoir 1989 [1952]; Smith 1979; Westkott 1979; Moraga 1981; Lorde 1984; Anzaldua 1999; Collins 2000; hooks 2000). These are defined in feminist literature as assets, as a source of creative tension, and as a basis for standpoint epistemologies, which emphasize the historical and situated nature of knowledge. Most writers emphasize outsider or shifting status rather than insider status per se. We discuss the advantages and complexities of insider/outsider and shifting status specific to this large-scale social action research project in which the target is the university itself.

To begin, the “insider” status of two members of the research team—both full professors, one the project's principal investigator, the other an associate dean—was a research bonus, and gave us privileges and advantages not otherwise available. First, there was access to administrative deans and chancellors, whose participation and affiliation with the larger project were secured from its beginning.^x Second, university staff and officials readily honored our requests for information otherwise not so easily available, in part because

they came from “the dean’s office.” Indeed, some key variables—such as gender and race/ethnicity—are normally confidential and not published or associated with individuals’ names. Nevertheless, we were able to merge certain databases and thereby connect this information to salaries. In addition, some sensitive, non-public information about who left the university and why they left was obtained via phone calls and emails through networking and contacts as part of normal work activities. There was no deception here, but the process was definitely more informal than a typical research survey or report would have been. Finally, we capitalized on our insider connections by listing well-known administrators and advisory board members on letters sent to survey non-respondents in order to increase the response rate. And, it apparently worked; the number of responses doubled after we distributed this letter.

These examples illustrate that in some respects, we were more insider than outsider vis-à-vis the university system. This had its downside as well as its benefits. Indeed, Westkott’s (1979, 428) insightful description of insider/outsider status in academia as “women opposing the very conditions to which they conform” often felt like “conforming to that which we oppose”—a subtle but important distinction. This expression began to haunt as we found ourselves increasingly embedded in and familiar with the institutions’ decision-making bodies, both as regular faculty members and researchers. Challenging the source of one’s institutional power is tricky business. At times it became too easy to agree with, even repeat, some authoritative rationale for administrative decisions and policies. At other times, strong feminist responses to untenable

policies were alive and well. In other words, we experienced first-hand the extent to which structures permeate and shape consciousness, even though at other times we were critical of the institution. The research experience highlighted tension (as well as agreement) between consciousness and behavior, as described by Westkott (1979). We continually had to remind ourselves that the project was to support major challenges to and changes in the environment in which we were so successfully working. We had to remind ourselves, also, that this same environment is our "ongoing source of institutional power" (Bensimon and Marshall 2003, 347).

In at least one instance, insider status and its relative influence may have led to unexpected, unintended, undue influence. To illustrate, we relate an anecdote.

The setting is the annual evaluation process to determine salary raises for the next year. The Chancellor's office announces that this year, unlike the past three years, there will be no gender equity adjustments made. The rationale for this decision is that although there remains a gendered salary difference, it is not statistically significant. Surprised at this announcement, and already aware through informal networks of critical statements about the specific regression analysis that led to the conclusion of no significance, one team member queried a high official via email for additional details about the decision. The senior official's response was to defer responsibility for the decision—it was not his doing. "You can't pin that on me," he said jokingly. The team member

immediately clarified that the query was meant to be inquiring, not accusatory. A few days later, the Chancellor's office announced a revised policy; indeed there would be a gender equity adjustment process, after all.

We do not assume that the contact caused the change in policy; it is likely that several other campus activists made the same inquiry. More to the point of this project, simply by requesting more information about the decision, the researcher in effect became both subject and object of the pay equity process. She was simultaneously researching pay equity on campus and involved, even if peripherally and inadvertently, in the decision-making process regarding salary adjustments and, being a female faculty person, could have benefited directly from the policy change. Although the latter was unintended, from the point of view of traditional research, the incident illustrates "contamination," the researcher affecting the very thing she is researching. So much for the positivist ideal of unobtrusive measures (Webb 1966). Ironically, this is an example of the type of success that the project wants to generate.

The example just cited is entirely consistent with action research, which differs from traditional science research norms by purposefully affecting that which is under study (Whyte 1991), usually for emancipatory reasons. The example in this case is similar to Oakley's (1981) experience of interviewing pregnant women. She was affecting (by giving advice and information) the parenting as she studied it. Insider status, then, became insider influence at times.

Action research is as disruptive as traditional research tries to be unobtrusive (more on obtrusiveness in the next section). But the insider/outsider status of this project's researchers meant walking a fine line between working with and against the system, not only choosing one's battles but choosing the appropriate argument/rationale. We found, for example that liberal feminist arguments work well with University administrators. They cannot disagree with arguments for an equal playing field. Implicit here is the liberal assumption that equality means sameness and sameness means equity. Even as we articulate it, though, we realize that sameness is not necessarily equitable. And the wonderfully audacious goal, as announced in the proposal—to change the rules rather than women—will, no doubt, require arguments in the tradition of cultural and radical feminism (women's contributions are different but equally or more valuable; women's needs are different and need to be recognized). Again, there is a clash between liberal and more radical feminisms—this time in relation to the social action aspect of the project.

Obtrusiveness. From its beginning, the action part of the project was intentionally obtrusive. The target was the entire university campus, so we encouraged widespread publicity. Nevertheless, at one point, a research-oriented team member proposed to the principal investigator that we use college "A" in the system as a comparison group to be contrasted with the larger, more central college "B." She (the researcher) pointed out that college A had few women in its departments and was about to launch a "top down" effort to increase the number of female faculty. As a result of strings attached to incipient and substantial

funding, college A administrators had set a time-specific mandate for hiring specific numbers of female (and other minority) faculty. The research idea was that college A's top-down and externally imposed strategy to increase the number of female faculty contrasted nicely with college B's more "bottom-up," internally generated strategy to achieve similar ends.

Even as we argued in favor of this plan, though, we realized that the publicity about the project and its obtrusiveness rendered untenable the possibility of an "uncontaminated" comparison group on the same campus. Again, it is a minor but consequential clash between what would have been an unobtrusive ideal field experiment and the obtrusive goals of the project. In any event, the principal investigator understandably rejected the idea because we could not contain the project as defined, practically speaking. More importantly, for purely ethical and liberatory reasons, we could not pass up the opportunity to buttress support for and facilitate the planned change in college A. It would be ironic, indeed, if we as feminists intentionally held back project benefits from some faculty for the sake of a "clean" comparison.

A second issue has to do with obtrusiveness of the survey. As executed, it had some potentially negative effects on the very people it was designed to help. Several respondents expressed fear of being identified and subsequent negative repercussions based on their responses. One respondent, for example, left us to ponder the statement, "I fear I will be punished for taking this survey." Minority and/or untenured faculty appeared to be especially vulnerable, but even tenured full professors expressed reluctance to respond honestly and straightforwardly to

the survey for fear of jeopardizing relationships with colleagues. Another reluctant respondent raised an important issue we had not anticipated. She did not want to reveal her location in the university and, at the same time, evaluate the leadership in her department because it would undercut her strategy for survival and advancement. Consider her comments:

I was looking forward to participating in your questionnaire, as the issues of academic women have always been of the utmost importance to me. But I will not send in material assessing the chair of my department in the areas about which you've asked and then identify my department, therefore him....I have a professional relationship with this man which is based in good will on both sides....I will not compromise this relationship. One of the things that women in academe must learn is how to function and survive in a system that is by definition sexist and racist. ...If you are trying to take care of yourself in the wilds of academe, you need to cultivate a relationship of some kind with your chair.

This respondent did complete the survey after learning that she could skip potentially identifying questions, but that makes it more difficult for us to identify and address specific problem areas in the university. This is especially an issue in cases where departments are predominantly male. Thus, exposure, though necessary in one sense, increases vulnerability and undercuts the goals of the project in another sense. (As an aside, we considered the above respondent's criticism as advice and incorporated it into our faculty workshops on networking,

mentoring, and coaching among faculty. The result, though unintended, is a nice example of synergistic feedback across different parts of the larger project).

Resistance. Ours is not the first feminist project to show that change efforts generate resistance (see, for example, Aiken, Anderson, Dinnerstein, Lensink, MacCorquodale 1987). The following excerpts from the open-ended section of the survey illustrate that not everyone in the university agrees with the premise of the project (that some groups are disadvantaged) and therefore oppose the project itself. For example, two different respondents write,

Need less emphasis by women on making gender an issue....There's too much political correctness. Instead of focusing on someone's gender or ethnicity or background and looking for victims among women or minorities, people should just treat each other with respect....Too many people are slackers....

And,

May I comment about this survey?....the authors seem to assume that questions of gender/ethnicity, etc. are at the center of everybody's attention....How about including some questions about increasing the number of professional, hard-working people regardless of their sex or ethnicity? Thank you.

Although both respondents returned the survey partially completed, the message is that they endorse a return to traditionally egalitarian, perhaps pre-feminist values rather than the kind of change advocated by the project. The research

dilemma here is that the survey itself appears to have kindled mobilization against the kind of change we are hoping to achieve.

Discussion

The now substantial literature on feminist research describes the approach as “passionate, scrappy, energizing” (Garko 1999, 167); as contradictory, controversial, revolutionary, dynamic, problematic, oxymoronic, explosive, and filled with creative tension. Russo (1999) refers to “epistemological unrest.” Fine and Gordon (1992, 11) describe feminist psychology as an inherent contradiction, pointing out that psychological laboratory studies, with their isolation, sterility, and lack of relationships, are designed to “drive women mad.” Merrick (1999) describes her complex feminist reanalysis of data on teen pregnancy as “like chewing gravel.” There is agreement in the literature that traditional methods need feminist inspired interruption (Harding 1987). Indeed, Scott and Shah (1993, 99) cite Pesquera as wondering if “we can develop empowering methodologies without examining the whole process of academic production within the university.” Certainly we have accomplished one goal of this paper, that is, to capture the contradictory, emergent and potentially revolutionary nature of feminist research as it is practiced.

Backstage, inside story accounts of research in progress have been contributing to improving methodologies at least since Roth’s (1966) “Hired Hands Research.” Feminist research is especially known for its reflectivity. It is not surprising, then, that there is a substantial literature of case studies of

feminist research projects (Belle 1982; Aiken et al 1987; Ladner 1987; Halloway 1989; Riessman 1990; Acker, Barry, and Esseveld 1991; Brown and Gilligan 1992; Wasser and Bresler 1996.) Indeed, there is so much that Russo (1999) asks if feminist researchers are obsessed with methods. A second purpose of this paper is to contribute to this literature.

Our focus is specifically on feminist empiricism, also described in the literature as in transition and controversial even (or primarily) among feminists. See, for example, Harding's (1993) detailed comparison between feminist standpoint, on the one hand, and prefeminist and spontaneous feminist empiricist epistemologies, on the other; Campbell's (1994) model of "internal" feminist empiricism; Longino's (1993) philosophical model of contextual empiricism; and Nelson's (1990,1993) "naturalized" empiricism. Thus, juxtaposing our reflective thoughts as we engage in feminist empirical work with what theorists and philosophers write about it should be informative. Not surprisingly, we do not exactly fit any one description of feminist empiricism—not completely and not yet, anyway. Certainly we recognize what Harding (1993) calls "spontaneous" feminist empiricism in the earliest stages of this project. But our thinking soon became unstable,^{xi} transitioning across different feminist approaches.

To contribute to current discussion and debate around feminist empiricism, how it is practiced, and how it is transitioning, we present a few close-to-the-ground conclusions based on this particular research experience.

As stated earlier, we recognized, agonizingly perhaps, that our feminist thinking had outpaced available methods and strategies. This was most obvious

in efforts to measure feminist consciousness when we realized that conceptual complexities and refinements could not be captured by a few or even a series of survey questions. We also realized that to generate useful data and capture the thinking of our respondents, we had to abandon our own constructs and temporarily adopt their points of view.

We see the same pattern—i.e., that our feminist thinking had outpaced our empiricist approach-- with respect to understanding salary differences between male and female faculty. We began with an effort to explain (away) via regression analyses the gendered gap in salaries at this university. We ended with critical questions about the larger social structure and culture—questions that are unanswerable within regression mode thinking. The questions that emerge when one attempts a deeper—what is behind the numbers—understanding of this pattern are division-of-labor-by-sex questions. That is, answers to questions about salary differences are found in patterns of sex segregation by academic discipline and likely by associated patterns of work distribution (research, teaching, and service) across and within disciplines. These in turn are patterns that reflect the larger societal division of labor by sex. It is interesting that these kinds of substantive questions begin to approach those that constitute starting points for feminist standpoint theory. We cite, for example, Harding's (1993: 55) description of Dorothy Smith's questions about women's work that are generated by a strategy of grounding knowledge in women's everyday experience.

... she (Dorothy Smith) points out that if we start thinking from women's lives, we (anyone) can see that women are assigned the work that men do not want to do for themselves...

We come to a similar conclusion—i.e., that our feminist work developed similarities to standpoint and postmodern approaches—from our experience of dual vision. That is, as we shifted back and forth between views of the university from central and marginal social locations, from both the inside and underside, so to speak, we experienced first hand the multivocal and complex nature of the realities we were studying. In other words, this process erased, eroded, and undermined any semblance of a monologic voice that usually underlies and characterizes prefeminist empiricism and much of feminist empiricism.

Does it matter what we call our practice of feminist research? Does it matter whether what we have described is contextual (Longino 1993), spontaneous (Harding 1993), positivist, internal (Campbell 1994) or naturalized feminist empiricism (Nelson 1990, 1993, 1994)? It does insofar as feminist empiricism is still emerging and this work can be seen as part of the transition toward delineating an effective, successful, and transforming version of feminist research. As a feminist project whose researchers are cognizant of the variety of feminist alternatives, it has descriptive and thus epistemological value. As an actual project against which primarily theoretical work can be compared, its value is in its very doing.

Why confessions? This account feels “confessional” in the sense that alternatives to feminist empiricism— standpoint and postmodern feminism— seem more cutting edge because they are more deliberately critical of traditional ways of producing knowledge. We felt apologetic for continually falling back on known empiricist strategies when we were thinking more radically and aware of being constrained methodologically. This is an odd stance to take, though, since feminist empiricism has been revolutionary in its contribution to women’s liberation, and as Cancian (1992) and Longino (1993) point out, despite much writing about creating innovative methods, most feminist work revises mainstream methodologies. (Further, an oft-repeated theme in the literature is that feminism is not in the methods per se but in their use.) Postmodern thinking in particular is often more exhilarating and challenging theoretically, yet insofar as it rejects grand theory, large scale models, indeed, any kind of generalization, it poses almost irresolvable empirical challenges. Our theme that feminist empiricism is outgrowing its traditional methods is worth pursuing through further analysis of specific research projects such as this one. For now, we continue to stretch and expand the research paradigm with which we began.

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Figure 1: Evaluation Research Design

Pretest Measures	Intervention Strategies (Project Initiatives)	Continuing and Posttest Measures
<ul style="list-style-type: none"> • Gendered salary gap • Number of women faculty in sciences • Retention rates • Distribution of women faculty • Climate survey: leadership, mentoring, diversity, support, feminist consciousness 	<ul style="list-style-type: none"> • Curriculum development • Leadership workshops • Coaching/mentoring faculty • Guest speakers • Administrative apprenticeship • Networking opportunities • Outreach activities • Graduate research appointments. • Exhibits/public display • Newsletter 	<ul style="list-style-type: none"> • Gendered salary gap • Number of women faculty in sciences • Retention rates • Distribution of women faculty • Climate survey: leadership, mentoring, diversity, support, feminist consciousness

Figure 2: Salary Regression Models

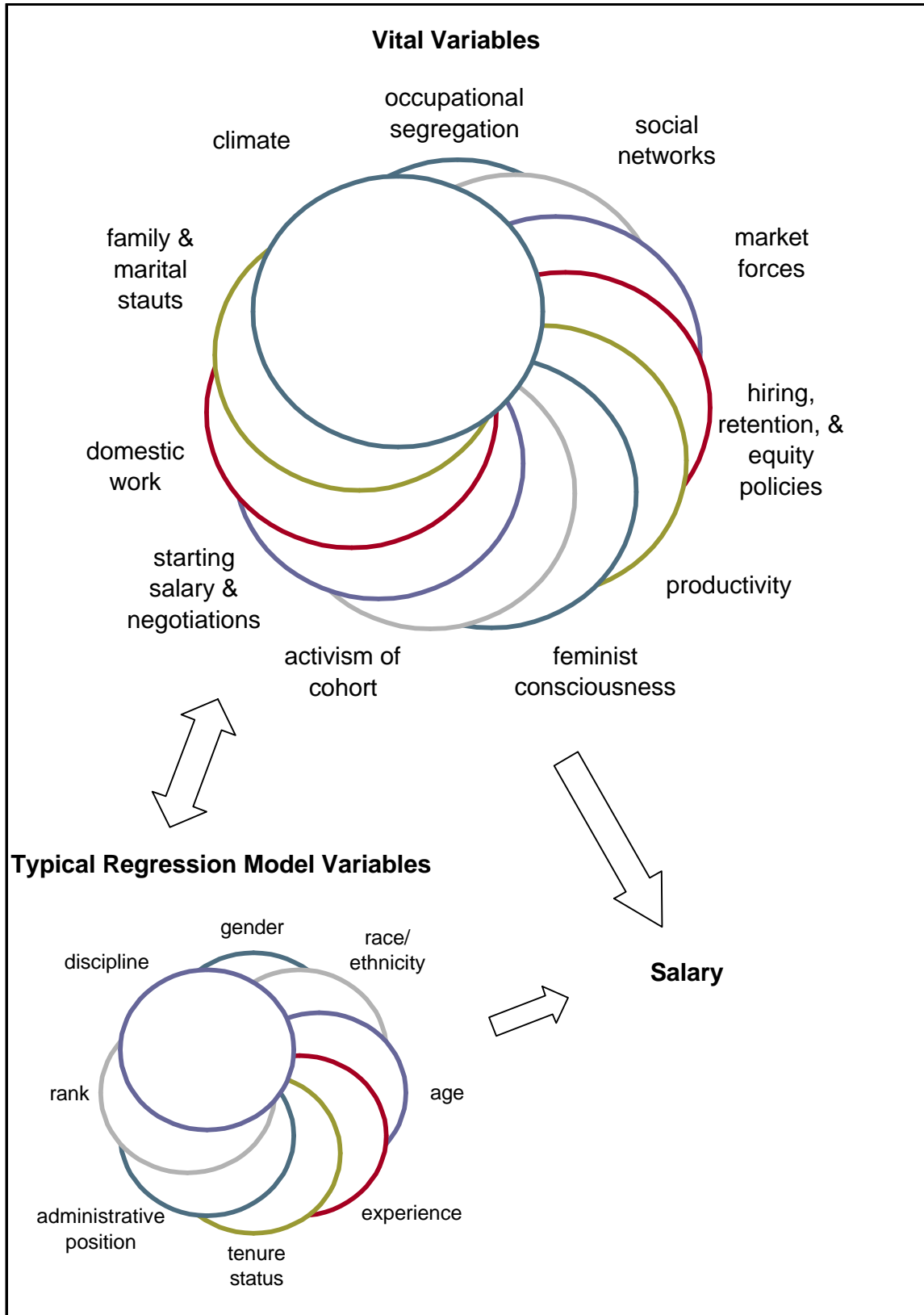
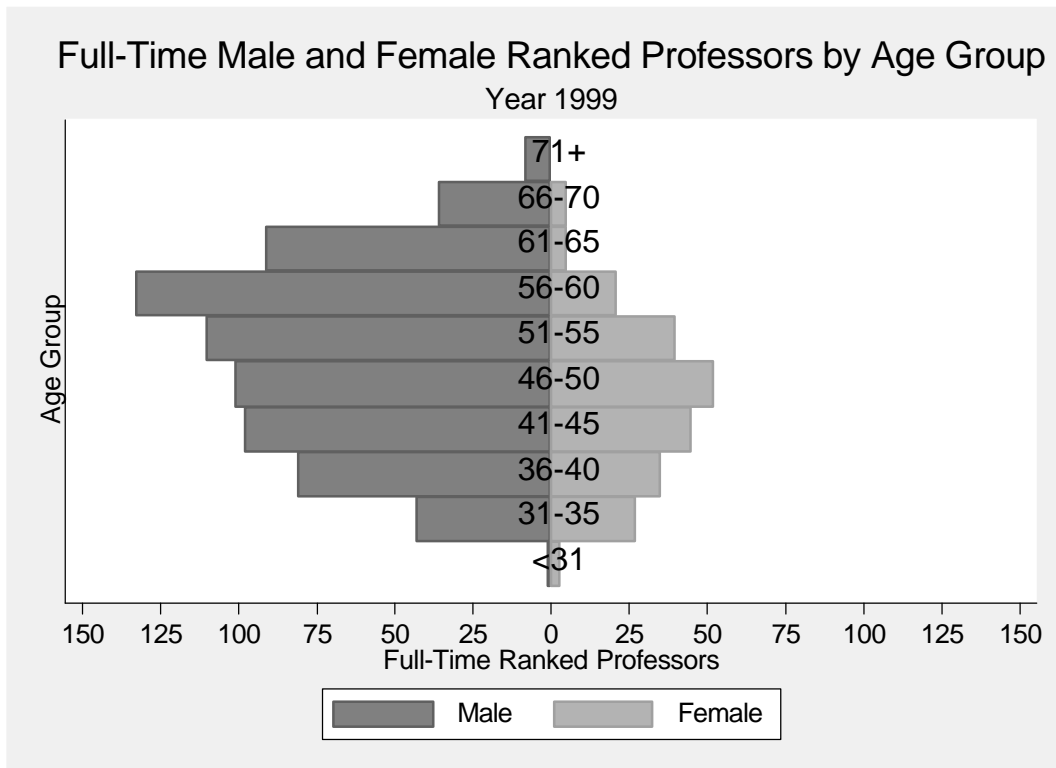
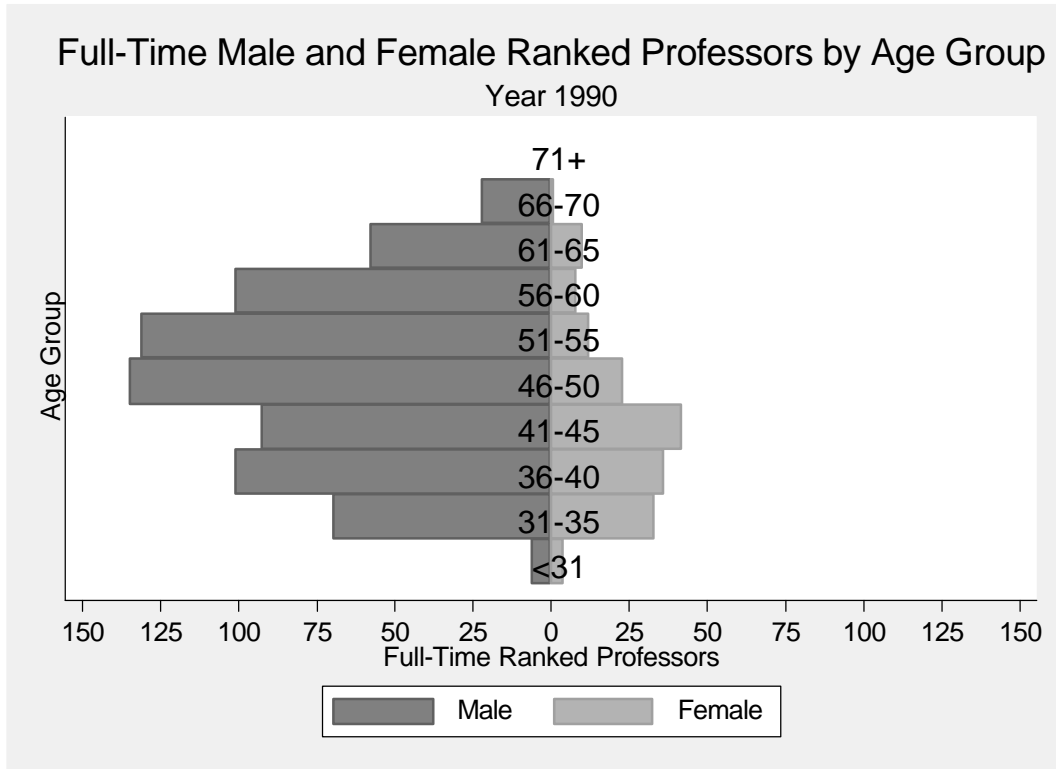


Figure 3: Female-to-Male Pay Ratios in 2002 by Rank and Cohort

Cohort (Hiredate)	Full Professors	Associate Professors	Assistant Professors
<1966	68%		
1966-1970	70%	90%	
1971-1975	114%	87%	
1976-1980	92%	117%	
1981-1985	94%	91%	
1986-1990	81%	89%	71%

Figure 4: Population Pyramids of Faculty in 1990 and 1999



Endnotes

ⁱ Leadership Education for Advancement and Promotion (LEAP) Proposal #0501.05.0617B to the National Science Foundation, 16 May 2001, p. 1-3.

ⁱⁱ A separate research team is independently evaluating specific initiatives such as the leadership workshops. Indeed, the larger project is a triangulated research plan that includes ethnographic analyses of individuals' career paths in addition to the work described here. The goal is a comprehensive look at women's status in the institution.

ⁱⁱⁱ The indicators of change that we emphasize, listed in Figure 1, are derived from a longer list of measurable items compiled by a dozen Principal Investigators representing similar projects at other institutions. The longer list, endorsed by NSF, includes: Number and percent of women faculty in science/engineering by department; number of women in tenure-line positions by department, rank, and ethnicity, tenure promotion outcomes; years in rank by gender; time at institution and differential attrition by department or rank; number of women in non-tenure track research and instructor positions; number and percent of women scientists and engineers in administrative positions; number of women scientists in endowed/named chairs; number and percent of women scientists and engineers on promotion and tenure committees; salary of scientists and engineers; space allocation by faculty; start-up packages.

^{iv} In regression analysis, a dependent variable (in our case, salary) is considered to be a function of independent or predictor variables. When there are several independent variables, the regression equation "weeds out" the effect of other

variables and calculates the unique change in salary for a unit increase in each variable while holding the other variables constant. These relationships are often illustrated in scatterplots with the values of an independent variable on the X-axis and the values of the dependent variable on the Y-axis. The scatterplot shows numerous observed points (e.g. the education and salary of each faculty member). The regression equation estimates a line that fits the scatterplot values by calculating minimal distances between the points. We used an ordinary least squares regression model. “Least squares” refers to the way the distances are calculated and “regression” refers to the practice of fitting values to a line. The line shows how the independent variables cause the dependent variable to change. For further explanation, see Berry and Feldman (1985) and Lewis-Beck (1980) as well as Haignere (2002).

^v Variance is a statistical term that captures the spread or range of individuals’ salaries.

^{vi} In the counterpart method, each female and/or minority faculty person identifies a white male peer for comparison in terms of salary, longevity, productivity, etc.

^{vii} We use the term “demographic inertia” to refer to the analysis of population pyramids over time—by gathering the gender composition of incoming and outgoing faculty, we can illustrate and project what the pyramids may look like in the future. A population pyramid is a graph that illustrates the age and gender composition of a population or group of people. A normal pattern of population growth reveals relatively equivalent numbers of men and women and, because

there ought to be few old people and many young people simply based on mortality rates, the graph should look like a pyramid. When a pyramid is shaped irregularly it reveals demographic patterns. In this study, the pyramids of faculty are lopsided and top-heavy, showing a predominant older-aged male population (see Figure 4).

^{viii} The interactional yet constitutive nature of consciousness is nicely expressed by Terry Eagleton (1991: 194) as cited in Fine (1992: 174): “....consciousness is less something ‘within’ us than something around and between us, a network of signifiers which constitute us through and through.”

^{ix} We endorse objectivity in the sense of making information public rather than in the sense of distance from the subject being studied (Nielsen 1990: 31).

^x This endorsement was required by the funding agency in keeping with its promotion of institutional change.

^{xi} Harding (1986) defines feminist conceptual categories as appropriately unstable. One can say the same about feminist methods, epistemologies, and methodologies.