

GOAL OF “PARITY” IN INFORMATION TECHNOLOGY

Gerhard Sonnert (Harvard University)
 Mary Frank Fox (Georgia Institute of Technology)
 Deborah Johnson (University of Virginia)

Theory/Research Team of Social Science Network
 National Center for Women and Information Technology

Goal of "parity" in IT: What does "parity" mean? Why is it a goal, and what is the underlying purpose of changing the composition of the IT workforce? What are the consequences (including "unintended consequences," such as "back-lash") of such change?

I. Definitions of "parity"

1. Numerical parity as equal numbers of men and women in IT at all levels (including especially higher levels).

Comments: We would not consider numerical parity achieved if women were predominantly employed in low-level positions. "Significant participation" –that is, having rank, positions of power, and impact in the field—is to be distinguished from "presence." In addition, a 50/50 representation of women may be more meaningful from an ethical and/or political point of view than from the perspective of how women are treated and how women act in IT. Particular social groups may perceive more or less than a 50/50 representation as "gender parity." For instance, a 40/60 split or a 60/40 split might still be perceived as parity; in other words, there might be a range of numerical representations that is perceived as parity. Perceptions about the gender composition of a group are often initially formed not by precise data, but by subjective observations and experiences in and out of workplaces. History may be factored into these perceptions about gender parity: Some may think that a 40% representation of women in a particular subfield, for example, design of “computer gaming,” would be such a “gain” that it would be perceived to represent a form of “parity.” Because such perceptions about group composition are likely to influence behavior, it is an important task for social science research to determine this range of perceived gender parity quantitatively (also see comment on thresholds below). Ascertaining such a range could lead to a more flexible, yet at the same time realistic, definition of parity because parity defined that way would have real-life consequences.

2. Parity as absence of structural disadvantages for women (e.g., gender discrimination).

Comments: Empirical research is needed to disentangle numerical effects and structural effects (i.e., those rooted in characteristics of the work and the workplace) and to determine their relationship. Not only do we need to find out which structural changes, such as

greater clarity in evaluative procedures, increase women's significant participation [cf. the work of the Research/Evaluation Group of the SSN], but also we need to find out how an increase in women's participation affects structures.

For numbers alone, are there thresholds and a "critical mass" effect in women's participation? Can such an effect be quantified? (Such empirically identifiable thresholds would be more meaningful than simple 50/50 representation goals.) Does critical mass by itself lead to structural changes? Adherents of a structural perspective would argue that it may not be enough to populate the existing IT structures with more women, but that one would have to change those structures deliberately so that the "norms" or "standards" of the work and workplace support equity. Here we need comparative case studies from other professions and perhaps from other time periods.

3. Parity as equal hospitability for women

Comments: Even when women are treated equitably in IT, they may not consider that industry attractive if they believe it does not fit with their values, goals, and orientations to work. Hence, an important research question is how satisfying IT jobs are to women. Here issues of culture and "preferences" for types of work (which are, in turn, strongly connected through the channels of socialization, and are socially "constructed") need to be considered. Correspondingly, research is needed on how such cultural and psychological factors influence women's participation, and vice versa.

If women do not find satisfaction in working in IT as currently structured or with structural change, the parity goal might have to be re-thought or re-conceived. It would be helpful to investigate which structural features of the work environment are particularly salient in determining how attractive and satisfying IT workers find their jobs, and especially to examine to what extent men and women differ in that respect. Another research question would be whether an increase in women's numbers "automatically" increases perceived hospitability for women, or whether deliberate cultural change is necessary.

In sum, understanding how numerical effects and structural, psychological, and cultural effects work separately and together would be helpful.

II. Why is it a goal for NCWIT to increase the representation of women in IT?

There may be a difference between NCWIT's motivation and the motivations of other players in this area (IT firms, universities, federal government, etc.). If NCWIT understands these other motivations and seeks common ground, i.e., emphasizes overlap, it will be more effective in realizing its goal. Possible motivations and justifications for increasing participation at all levels include:

1. Fairness: Fundamental cultural value that it is unacceptable to discriminate on the basis of irrelevant characteristics and statuses such as gender.

Comment: This motivation is probably central to the belief system of NCWIT; nonetheless, it should not be relied on exclusively, but integrated with the following two motivations.

2. Human resource: Excluding women means cutting the available talent pool in half.

Comment: The salience of this argument varies with the job market. If there is a shortage (real or projected) of qualified IT personnel, women will be sought after for this reason. If there is no shortage, the issue of gender representation will become less urgent. The collection and dissemination of relevant labor market data and projections is key here.

3. Better IT: A larger presence of women makes IT "better" in some respect.

Comment: Here is an important area for empirical research: In what respects, if any, do women in IT act differently from their male colleagues (gender-specific styles of doing IT)? What are the effects of such differences (for IT products/services, for marketing and sales, for competitive edge)? Gender differences in leadership styles might be relevant here, and if women have greater interpersonal orientation, a greater participation by women might make good business sense as well, because women might be better at listening to and understanding clients' needs, establishing rapport with clients, co-workers, etc. Empirical research results demonstrating the "better IT" thesis is bound to drive up support for the parity goal considerably.

III. Unintended consequences of approaching the parity goal (i.e., of increasing the proportion of women in IT)

There may be a "back-lash" against efforts to increase the numbers of women in IT. Here lies another important field for future research: Can any empirical determinants of such a back-lash be described (e.g., are there certain proportions at which this becomes more likely? is it more likely in times of expansion or of crisis? are there any other precipitating or inhibiting factors?, etc.)?