Measuring Female Progress in Academic Work in Colombia

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The feminist movement has suggested that women, because of their socialization, tend to choose jobs imposed by the culture, such as psychology, child care, and social work, while careers such as engineering are seen as more masculine. We measured the numbers of women attending Colombian universities and what categories and disciplines they were enrolled in. Our aim was to either corroborate or refute the feminist hypothesis and to examine whether women’s university paths correspond to the theory that predicts there will be fewer women in high-responsibility jobs and many more serving in administrative functions without decision-making power.

In addition to measuring how slowly or quickly the female presence in university research is being established, our results also allow us to discuss and evaluate the progress of females in academic work.

Government promotion of scientific research in Colombia began with the creation of the Colombian Institute for the Development of the Science and the Technology (COLCIENCIAS) in 1968. In 1991 COLCIENCIAS began collecting data about the scientific community. In this paper we focus on the gender distribution among group leaders and the production of research results. It is worth noting that the basic information used is incomplete because the data were given freely and do not cover 100% of Colombian research groups. Nevertheless, we think the data are adequate for estimating gender participation in research in Colombia. The total number of people dedicated to research in the groups is 5429 in the examined period, 1998–2002.

COLCIENCIAS data show that the number of Colombian women participating in scientific research steadily grew from 34% in 1998 to 40% in 2002. Growth has occurred in all scientific fields, with the medical sciences registering the biggest increase.

It seems that most Colombian research groups are composed mainly of men, with women participating as part-time research assistants only. However, in 29% of the groups the group leaders are women. Taking into account only master’s- and PhD-level researchers, women constitute 18%. As commonly known, engineering is dominated by men, while women have gained participation in medical and social sciences. In the medical and social sciences disciplines, some groups consisted only of women.

Among the 42% of researchers who are women, only a small portion are at the level of researcher or PhD student, while the percentage of men and women at the level of research assistant and support worker is equal. Twice as many men than women are PhD students. The majority of women working as assistants are between 26 and 35 years old; as age increases, the number of women decreases compared with the number of men.

The highest title usually found among researchers in any discipline is the master’s degree. In the medical and social sciences, where there are more women than men at the undergraduate level, there are fewer women than men (38% women) at the specialist, master’s, and PhD levels. Why do women not reach the higher levels of master’s and PhD?

Women increased their participation in PhD groups during the 1990s, mainly in the social and basic sciences, especially in cellular biology, biochemistry, and related areas such as biotechnology, applied microbiology, education and teaching research, languages, and anthropology.
The numbers of PhD-level researchers, both men and women, grew between 1994 and 2000; however, the number of women is consistently lower, and the gap widens after 2000.

Of 7138 research projects in 2000, 1137 (16%) were conducted by all-women teams. In 3248 of the projects, however, not a single woman was on the team. A full 45.5% of the projects had only men as researchers, mainly in engineering, agriculture, genetics, and economics. All-women projects were in education, languages, infectious diseases, and health care. In about 12% the number of men and women researchers was equal, and in 90% between one and three women participated.

Both men and women produced an article each in a recognized international journal during the analyzed period. Men produced 57% and women 43% of published articles. The participation of women as authors and coauthors is highest in medicine. The number of women having their research published is also relatively high in the basic and social sciences, although mainly in books. Interestingly, women are authors in one-third of the total patents.

CONCLUSIONS

1. Some fields are still dominated by men; other fields, such as medicine and some social sciences, show that they are beginning to be led by women. Although we do not pretend to reach a perfect gender equilibrium, we expect to create a better space for women with conditions more appropriate to them.

2. Women do not yet direct research groups or projects. Perhaps family occupations do not permit women to dedicate much time to research. Another very different reason could be that the research structure is determined by men and therefore women’s strengths are not taken into account. Perhaps there is discrimination in the higher academic levels. Or perhaps the women themselves do not search for better conditions and prefer to leave the direction to men.

3. The highest average educational level of Colombian researchers is the master’s degree. Women are typically at the level of specialist, lower than master’s.

4. However, the overall picture is encouraging because there are many young women initiating their research careers and we may expect that they are going to lead groups and projects in the near future.

REFERENCES

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