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# Paul Samuelson, gender bias and discrimination

Roger E. Backhouse and Béatrice Cherrier

#### **ABSTRACT**

Paul Samuelson's widely quoted deprecatory remarks about female economists are discussed in the context of his having been one of the earliest economists to emphasize the problem of gender and racial discrimination in his textbook. Reference is made both to his published analyses of discrimination, in his textbook and elsewhere, and to archival materials on his interactions with female economists, including testimonials he wrote on their behalf. His attitudes appear paradoxical in that he emphasized the problem of discrimination and was very supportive of women but this did not lead him to challenge some of the attitudes he held about women in general.

**KEYWORDS** Samuelson; gender; women; discrimination

JEL CODES B20; B31; B54; D30

#### 1. Introduction

In 1973, following a report by the Council of Economic Advisers (CEA) which contained a widely noticed chapter on the economic role of women, the Joint Economic Committee of the US Congress organized hearings on this topic. In her testimony, CEA staff member and Pittsburg economics professor Marina Whitman tied the "novelty" of the endeavor to a criticism of economics: "the economics profession has been slow in developing expertise on the special problems of women," she declared (JEC 1973, 33).

Indeed, we are glad to observe that finally women and economics are being included in the same breath without a knowing wink by the male economist. One sign of this is the change in a passage found in various editions of Professor Paul Samuelson's well-known economics textbook. Lamenting the popular reaction to the results of rationing, Professor Samuelson wrote in his first edition (1948): Of course, there are always a few women and soapbox orators, who are longer on intuition than brains

and who blame their troubles on the mechanism of rationing itself rather than on the shortage (italics added).<sup>1</sup>

Samuelson, who was also set to testify, frowned, and remarked that he was "surprised, given the magnitude of the economic problems facing the United-States, that the President's Council of Economic Advisers would have the time to go back to uncover my past errors" (quoted by Collier, see footnote 1). He went on to present the explanation for the female-male differential he had laid out in the latest edition of his textbook: that women are confined to a limited group of industries and occupations within those industries. "There is little good reason for a woman to have continuity in the labor force. She is given a rotten job by and large [...] we are only talking about the visible peak of the iceberg of custom and discrimination," he argued (JEC 1973, 66). He had already documented the issue of wage discrimination against women (and black workers) in the 1948 edition of Economics, the one in which he had made disparaging remarks about women.

This paper is predicated on the assumption that economics textbooks can help us understand the intertwined conceptions of women in society and women in economics which have become entrenched in the profession. They do not just mirror and disseminate economic knowledge but actively contribute to its creation and transformation (Medema 2011, 2012; Giraud 2018). That textbooks reflect and shape the discipline underpins Betsey Stevenson and Hanna Slotnick's (2018) investigation of the representation of men and women in recent introductory economics textbooks. They conclude that there is a gendered representation of fictional characters and an under-representation of female business leaders, entrepreneurs and policy-makers compared with the real-world.2

The investigation by Stevenson and Slotnick is part of a wave of discussions on the status of women in economics triggered by the release of Alice Wu's paper on gender bias on the Economics Job Market Rumors forum in the summer of 2017, one itself embedded in an ongoing worldwide gender reckoning in sciences, the arts, politics,

<sup>&</sup>lt;sup>1</sup> Mentioning this famous derogatory quote was suggested to her by Irwin Collier, who recounts the episode here: http://www.irwincollier.com/mit-samuelson-joint-economic-committee-1973/.

In France, Jezabel Couppey-Soubeyran and Marianne Rubinstein (2014) recently published a new textbook explicitly designed for an audience of women.

sports and society at large. In January 2018, an American Economic Association (AEA) session sponsored by the Committee on the Status of Women in the Economics Profession made the headlines of the New York Times, The Financial Times, Slate, Libération, and other newspapers.<sup>3</sup> It featured the work of Stevenson and Slotnick (2018) and Wu (2018) as well as evidence that women are being held to higher writing standards in Econometrica (Hengel 2017) and getting less credit for coauthored work (Sarsons 2018). In the following months, the AEA adopted a new "Code of professional Conduct" and established committees on the Professional Climate in Economics, on Economists' Career Concerns, and on Equity, Diversity Professional Conduct.4 Yet, a fruitful conversation on the status of women in economics requires documenting not only the what (bias, sexism, discrimination?) and the how (credit, referring standards, work-life expectations?), but also the why (the institutional and intellectual structures that have shaped this state of affairs). This is a historical question, one that requires navigating between the Scylla of condoning past economists' behavior "because it reflected the standards of the time" (no matter how those "standards" are supposed to be known) and the Charybdis of projecting current systems of knowledge and beliefs onto past behaviors and worldviews.

We believe that examining how Paul Samuelson conceived the role of women in society and the role of women in economics is an interesting way to bring a historical perspective to bear on current debates, for two reasons. The first reason is his eminence in the economics profession. He was the first winner of the prestigious John Bates Clark medal and the first American to win the Nobel Memorial Prize in Economic Science. His Foundations of Economic Analysis (1947), and the journal articles on which it was based, had helped shape the way economic theory was done after the Second World War, and he was a prominent contributor to debates on economic policy, frequently testifying before Congress. Largely due to Samuelson's presence, the economics department at the Massachusetts Institute of Technology (MIT) had become one of America's leading centers of economic research and graduate education. In Samuelson's textbook, Whitman was not just choosing any

See for instance "Wielding data, women force a reckoning over bias in the economics field," New York Times, October 01 2018.

<sup>&</sup>lt;sup>4</sup> See https://www.aeaweb.org/about-aea/code-of-conduct

textbook: she was choosing the book that had dominated introductory economics since its publication in 1948. Because of its author, Economics had an authority not possessed by other textbooks, and Samuelson updated it every 3 years to reflect changes in economic history and economic knowledge. It was used to train generations of economists and it set the standard for a new way of writing introductory textbooks (see Giraud 2014 and Backhouse 2017).

A second reason to focus on Samuelson is the wealth of material contained in his archives. As we have hinted already, contextualizing the way in which economists see women and their attitudes towards female economists is extremely tricky. It involves examining what they wrote and disentangling statements that might be characterized as describing, critically analyzing or endorsing an existing social order, even though boundaries between these three categories are often hard to establish. This problem is made more difficult by the profound changes that have taken place in attitudes toward the position of women in society and commonly accepted views on gender roles. It also requires documenting not only what economists said in print but also how they behaved with female students, assistants and colleagues. There is the additional issue that they often married fellow economists. Samuelson's papers contain many recommendation letters and exchanges with female economists. They also contain equivalent material on male economists, easing the task of establishing which statements should be seen as gendered and which should not (care is needed because standards for recommending male and female students alike and for interacting with colleagues have dramatically shifted in recent decades). Contextualizing remarks concerning women is also difficult because of the epistemological issue of what to make of silence concerning gender issues. The descriptive and qualitative approach we have adopted in this paper cannot solve all these issues.<sup>5</sup> However, we hope it sheds some light on the complexities, even inconsistencies, of an economist who was, without any doubt, a major figure in shaping the economics discipline.

<sup>&</sup>lt;sup>5</sup> Throughout this paper, we use "gender" and "gendered" to encompass both relations between sexes and socially constructed views of appropriate roles for women and men in academia. We take into account labor market power structures, yet we don't use any specifically Marxist, psychoanalytical or feminist underlying theory of gender relations. We adopt a descriptive approach more along the lines articulated by Rossiter (1993). We did not have a corpus of Samuelson's writings large enough to perform the kind of critical systematic corpus analysis described, for instance, in Baker (2012).

The famous textbook quote was not the only instance in which Samuelson was associated with deprecatory remarks about women, in particular female economists. When these remarks are taken together, they might suggest that he held women in low esteem. Our belief is that a different picture emerges if these remarks are viewed in the context of what he wrote about gender discrimination in his textbook and in the context of his attitudes to the women he encountered in his work. As he admitted, he was not free of prejudice, but the picture is more complex in that he was one of the first to draw attention to the problem of discrimination. To argue this is not to condone the remarks he made—when it was pointed out to him that his remarks gave offense, Samuelson made no attempt to defend himself, apologizing unreservedly for his mistakes, and we have no wish to defend statements that he thought indefensible—but it does portray him in a different light. We start by considering the treatment of women and discrimination in his textbook, showing that, whilst he described gender roles in society in way that, nowadays, appears to condone them, he was unusual among textbook writers in drawing attention to the problem of discrimination. Consideration of the textbook leads into the first widely-publicized incident, for which he apologized very publicly in his column in Newsweek and to changes that were taking place in American society and in American economics. We then document Samuelson's relationships with female economists, covering both his support for students and his interactions with established economists, before drawing some tentative conclusions. Our account stops in 1973 on the ground that after this date a different story needs to be told. As the Hearings quoted earlier indicate, the context in which gender issues were discussed was changing dramatically. The ninth edition of Economics, published that year, also saw the gender of the lawyer whose ability at typing compared to that of his female secretary was used to illustrate the principle of comparative advantage become female.6 Moreover, about to turn 60, in a period dominated by Republican administrations, and with his textbook facing increased competition, Samuelson, although still a major figure in economics, was beginning to become less influential.

<sup>&</sup>lt;sup>6</sup> In the first eight editions (see, for example, 1948, 540; 1970, 646) the example comprised a male lawyer who was better at typing than his female secretary, but who had a comparative advantage in practising law. In the ninth edition, both lawyer and secretary were assumed to be female.

#### 2. The textbook

Economics (1948) reflected and described the gendered social order of the times. Samuelson began by referring to how "The Dean of the Harvard Law School" invited the incoming class to "Take a look at the man on your right, and the man at the left; because next year one of you won't be here," presuming that university education was for men (1948, 3). Businessmen, whether monopolists or facing competitive markets, were by implication male; their accountants and sales managers were explicitly male (1948, 39, 510).<sup>7</sup> Lawvers were male and their secretaries female (1948, 540). Within the family, the "father" earns income and women spend most of it, often in ignorance of their husbands' pay-checks (1948, 61). There was, Samuelson, argued, widespread ignorance about the distribution of income, even among students who usually had exaggerated notions of what their fathers earned. Some women received incomes of their own, but these included women who had inherited large fortunes and women who worked as clerks at the local five-and-ten store (1948, 62). His message was that, although his readers would not be aware of this, the distribution of income was very unequal. However, although women earned much less than men, this did not mean that women were unimportant. To the contrary, citing the claim of "a prominent clubwoman" (a member of one of the many women's clubs that flourished in the first half of the twentieth century, many of which fought for Progressive causes), Samuelson asserted that women spent seventy per cent of national income.8 This is the context for the infamous quote in which Samuelson commented on "a few women and soapbox orators, who are longer on intuition than brains" (1948, 465). This appeared in a discussion of rationing in a later chapter on the "Determination of Price by Supply and Demand," in which he had repeated his argument that it was women who were in charge of spending, writing "Lines form and women have to spend much of their time foraging for food" (1948, 376-377).

At the same time as describing a society in which gender mattered, the textbook devoted extensive space to the problem of race and

<sup>&</sup>lt;sup>7</sup> It was routine to use the male pronoun to refer to people in general. In order to be fair to Samuelson, we have chosen to omit many places where, in our opinion, "men" might most naturally be assumed to mean "mankind." Choosing which instances to ignore is a matter of judgment but will not affect the overall conclusions.

<sup>&</sup>lt;sup>8</sup> He described the clubwoman's claim as "quite justified" but it is hard to see his inclusion of her assertion "and we soon hope to get hold of the rest" as implying support for her cause.



Table 1. Comparative 1940 per capita earnings of men and women and of Negroes and Whites.

	Male	Female
White	\$1401	\$734
Negro	\$663	\$396

Source: Samuelson (1948, 82).

gender discrimination. Samuelson characteristically opened his chapter on "Individual and Family income: Earning in Different Occupations" by differentiating girls' and boys' attitudes toward education: "For a girl who hopes to be married in a few years, the economic waste in taking such a [low-skill, low-pay] job before finishing high school may not be nearly so important as the social waste involved. But it is nothing less than a crime for a boy to terminate the schooling that can get him a higher skilled and better rewarded job for the few dollars and feeling of independence that come from such a futureless position" (1948, 87)9. However, he went on to present a table showing dramatic inequalities between women and men and between black and white workers, reproduced here as Table 1. He attributed this to discrimination, which took the form of some jobs being filled by men and other jobs by women, and by some jobs being unavailable to black people. He claimed that it was unusual for men and women doing the same job to be paid differently and "discrimination usually takes the more subtle and more effective form of not admitting men and women to the same jobs and in barring Negroes from many of the higher paid jobs" (1948, 82, emphasis in original).

Samuelson further argued that men and women were often paid different rates on the false assumption that women were less productive. Giving an example, he wrote, "in a General Electric plant, jobevaluation experts divide all factory work into two parts: women's jobs and men's jobs. The pay of the lowest men begins about where the highest women's pay leaves off" (1948, 83). He explained that women grade-school teachers were paid less on the grounds that their needs were less and their classroom authority was less than that of their male counterparts. He blamed not only employers, but unions, especially some of the unions in the American Federation of Labor (AFL). He concluded that, whilst the problem of racial inequality was getting worse, there was "steady improvement" in the position of

<sup>&</sup>lt;sup>9</sup> We leave it to readers to assess what he says about boys here.

Table 2. Distribution by father's occupation.

Occupation of father	American business leaders, 1929	American millionaires, living in 1925	Persons listed in "Who's Who," 1912
Businessman	60.0	75.0	35.3
Professional man	13.4	10.5	34.3
Farmer	12.4	7.3	23.4
Laborer	12.5	1.6	6.7
Other	1.7	5.6	0.3
Total	100.0	100.0	100.0

Source: Samuelson (1948, 106).

women (1948, 84).<sup>10</sup> Part of the background to this was data that raised doubts about whether America was the land of opportunity that it was widely believed to be. A table, reproduced here as Table 2, showed that business leaders and millionaires were much more likely to be the children of business leaders and millionaires than to be the children of farmers or laborers. Although the two economists from whose book these figures was taken, one of whom was Harvard's Frank Taussig, argued that good people could not be kept down, Samuelson was clearly skeptical about such a claim (1948, 106). He did not make the connection between the lack of social mobility and the persistence of racial or gender inequality, for these were discussed in different chapters, though his readers could easily do so. Samuelson was cautious in the way he addressed the issue of whether there were biological differences between men and women, or between people of different races. However, he made it clear that he thought such differences were less important than was commonly assumed. He wrote that "the views of scientists who have studied the question most are very different from those of the man on the street" and that the lowering of barriers during wartime had made it "absolutely clear" that there were many jobs that either sex or race could do equally well (1948, 83).

The textbook gave a detailed description of gender roles in the society of his day, and reveals Samuelson as very conscious of inequality and discrimination in American society. He made it clear that these problems were worse than many people realized. In all this, he was

<sup>&</sup>lt;sup>10</sup> Samuelson cited the Northrup (1944) and Myrdal (1944) as evidence on discrimination in unions. Northrup (1943) argued that craft unions in the AFL, and some unaffiliated unions, used discrimination as a way of excluding workers and maintaining wages; he failed to find any evidence of discrimination in the more liberal unions affiliated to the rival Committee of Industrial Organizations (CIO) which had separated from the AFL in 1938. These sources provided the evidence to support his claim about racial discrimination having become worse. The source of his claim about women is not clear and it is possible that it was based on less systematic evidence, or even on casual observation.

taking a more radical position than were the authors of competing textbooks. Several generations of textbooks were in use in the late 1940s. Frank Taussig's Principles of Economics, the first edition of which was published in 1911, was an old-style verbal textbook, adorned by no analytical diagrams and few statistical tables. Discrimination was mentioned, but despite Taussig having been the author of a study of discrimination on which Samuelson drew, it is hard to say that there was any economic analysis in his remark,

But a permanent group of helots is not a healthy constituent of a democratic society. It is on the same grounds that the position of the negro in the southern states is matter for grave anxiety. His indefinite continuance as a semi-servile laborer is not consistent with high social ideals yet his freedom to move into better conditions (so far as his innate qualities permit) is resisted not only by the selfishness of other groups, but by all the strength of bitter race prejudice. (Taussig 1939, II, 240).

Another widely used textbook was Frederick Garver and Alvin Hansen's 1937 Principles of Economics (first published in 1928). Unlike Taussig's book, some chapters are laden with statistics. Garver and Hansen did provide a short discussion of why women were paid less than men for the same work, attributing this to the reduced opportunities open to them and to weaker bargaining power (Garver and Hansen 1937, 417-418). Interestingly, statistics on male and female earnings for shop employees and factory labor were provided, but only in a section headed "Statements and problems for discussion," attached to a chapter different from the one in which discrimination was discussed (Garver and Hansen 1937, 537). Thus although Taussig, Garver and Hansen may well have held views on discrimination on grounds of gender and color that were no different from Samuelson's, he was clearly more conscious of the problem and considered it appropriate to make it more prominent in an introductory textbook. Issues of discrimination were paid even less attention in two textbooks written by economists nearer Samuelson's own age, Lorie Tarshis's The Elements of Economics (1947) and Kenneth Boulding's Economic Analysis (1948). Tarshis's coverage of income distribution, for instance, was confined to the incomes of different occupational groups, and different industries, with a particular focus on low incomes in agriculture.

One reason why the coverage of discrimination against minorities in these textbooks is less thorough than Samuelson's is that they were

Table 3. Selected measures of discrimination and inequality of opportunity, 1965.

	White	Nonwhite
Income		
Median income of families	\$6858	\$3839
Per cent of households in poverty	17.1	43.1
Per cent of families with incomes of \$10,000 or more	24.1	8.3
Education		
Median years of school completed by men 25 years or older	12.0	9.0
Percent of persons 20–24 years old who complete high school	76.3	50.2
Per cent of persons over 25 who are college graduates	9.9	5.5
Unemployment rates (per cent)		
Adult men	2.9	6.0
Adult women	4.0	7.4
Teenagers	12.2	25.3

Source: Samuelson (1967, 119, Table 6.4).

all written at a more abstract level, without the detailed examples Samuelson used to engage readers. This also explains why describing and replicating gendered roles is less of an issue in these texts, though sexist remarks can be found in Taussig's textbook, as when, in discussing different social classes, he described the wives of the "well-to-do" as "largely ornamental" (Taussig 1939, II, 237). Much of Tarshis's book is couched in gender-neutral terms such as buyer, seller, farmer, producer, family, landlord, lender, consumer, worker, wage-earner and speculator. Tarshis wrote of economists as male, and he could ignore the presence of women in the labor force, as when he implied that all 5.5 million government employees were men, even though they included teachers, many of whom were women (Tarshis 1947, 50). 11 Boulding only occasionally wrote about gender roles. One instance is the purchase of butter by a housewife, Mrs. Jones, from a male storekeeper, an action that was analyzed by an economist who was presumed to be male, and the housewife hires a male gardener to mow the lawn (1948: 6, 10, 16-17, 332-333). But that he attached no weight to the consumer being female is shown by his assumption that the abstract "consumer" is referred to as "he."

Samuelson's discussion of inequality and discrimination remained substantially the same for the first six editions (first edition, 1948; sixth edition, 1964). It was however significantly altered in the seventh edition (1967). The table giving the ethnic and gender breakdown of earnings was replaced with the table reproduced here as Table 3. Embedded in a section titled "the position of minorities," and it was

<sup>11</sup> Elsewhere (Tarshis 1947, 16, 19) he referred to "men and women".



headed "Negroes get less income and education and have more unemployment than whites."12

Samuelson still stated that women were paid less than men and that their unemployment rate was higher, but in the absence of the statistics, the size of the gender pay gap was now hidden. This shift in emphasis was signaled by the new prefix to his old chapter on individual and family income: "Affluence and poverty."

In the eighth edition (Samuelson 1970a) this was taken a stage further: the chapter on individual and family income was retitled "Incomes and living standards" (Chapter 6), and two new chapters, one on "Economic inequality" (Chapter 39) and one on "Economic problems of race, cities and the polluted environment" (Chapter 40) were added to the section on "Contemporary economic problems." In Chapter 39 he argued (reinforcing a point also made in Chapter 6) that "the common man exaggerates" the importance of differences in inherited ability compared with "the trained biologist and social psychologist" (Samuelson 1970a, 768). He wrote about class barriers, and the effects of age and health on income, but in this chapter he was silent on how gender or class discrimination might contribute to inequality. Chapter 6 still discussed gender inequality, but Samuelson had shifted his emphasis towards the problem of poverty, implying a focus on household income rather than individual earnings, and on urban problems linked to race. Samuelson was obviously responding to the issues raised by the civil rights movement and Lyndon Johnson's war on poverty (see Fleury 2010), but the effect was significantly to reduce the emphasis on gender discrimination at the time when the second wave of feminism was taking off. Although he still noted that under rationing it was women who had to stand in lines, he replaced "a few women and cranks" with "some cranky customers" (Samuelson 1970a, 373). However, in the course of publicizing this new edition he made another inflammatory comment on his readership.

### 3. From women in the economy to women studying economics

With the publication of the eighth edition of *Economics* it was not the reduced emphasis on gender inequality that attracted criticism, but

<sup>12</sup> The apparent inconsistency in Table headings is explained by the fact that the book effectively had two headings for each table, the formal heading and a headline giving the main conclusion to be drawn from it.



what Samuelson told New York Times journalist Israel Shenker while publicizing the book. Schenker's article reported:

In the new edition there will be the customary questions at chapter's end, but many extra credit questions as well for honor students. "The girls at Sweet Briar [a women's college in Virginia] won't be able to do them," said the author [Samuelson], "but honor students at Princeton will." 13

Samuelson received a series of letters protesting at this. The General Counsel of the Textile Workers Union, Patricia Eames asked why he had to "go around making male chauvinist statements." Ann Harris, an Assistant Professor at Columbia, who identified herself as a member of Columbia Women's Liberation, spelled out a more detailed accusation:

Why didn't you cite two male institutions or two female institutions? Your remark implies a sexual bias and helps to perpetrate the idea that women are no good at mathematics and economics and not much interested in such things anyway. I happen to know several women at Columbia who are economists or are studying to be economists. They find a great deal of male bias and prejudice faces them. Your remark suggests that you are also prejudiced against women. I hope this is not the case.<sup>15</sup>

Perhaps the most significant letter came from Jan Parker, the professor who taught economics at Sweet Briar College. After explaining that she was anxious to see the special extra-credit questions, she conjectured that the reason Sweet Briar came to mind in the interview was that he had probably read it in a list of loyal users of his book. Admitting that the college's name might sound like that of a finishing school (a reputation the college had once had), she proceeded to correct him.

Last year (my first here) I would have agreed with you 100%. But not this year. My classes now include some of the best students at Sweet Briar and these young women are, I venture, quite capable of competing favorably at Wellesley, and thus, perhaps would be able to tackle your honors questions [...] I don't deny that your choice of College conveyed your meaning well, but it has quite naturally undone a lot of people here. I personally wish it had been the world leader in political science or mathematics rather than economics who had slurred the school. Both the government and mathematics departments here are alleged to cater to the weak student, but economics does NOT.<sup>16</sup>

<sup>&</sup>lt;sup>13</sup> New York Times, February 5, 1970 (https://www.nytimes.com/1970/02/05/archives/economicssamuelson-8th-ed.html).

<sup>&</sup>lt;sup>14</sup> P.E. Eames, "Letter to Paul A. Samuelson," 1970, PASP, Box 81 (*NY Times* Review). <sup>15</sup> A.S. Harris, "Letter to Paul A. Samuelson," 1970, PASP, Box 81 (*NY Times* Review).

<sup>&</sup>lt;sup>16</sup> J. Parker, "Letter to Paul A. Samuelson," 1970, PASP, Box 81 (NY Times Review).

Parker focused on the inaccuracy of the remark about Sweet Briar, defending economics but showed little solidarity with her colleagues in government and mathematics. Her criticism was reinforced by a letter from the college's Director of Alumnae Affairs, Mrs. Wood, who said that she had received numerous letters from irate alumnae. Even if his intention had been to be light-hearted, she considered he had been unfair.<sup>17</sup> It is worth noting that although one of these letters, all from women, objected to the principle of implying that women were less able than men, others did not.

Samuelson responded with a very public apology. The first column he wrote for Newsweek after receiving Wood's letter was titled "Prejudice" and in it he confessed to having made "some derogatory remarks about the caliber of students at Sweet Briar" (Samuelson 1970b). He stated that the college had "a strong offering in economics" and it "rightly resents being characterized as a frivolous finishing school." There was, he continued, nothing to do other than apologize both to the college and "to the feminine sex in general." He wrote that his first reaction to being criticized had been to reflect on why he had presented "a stereotype concerning the implied inferiority of women." Rather than share his answer to that question, he observed that, as he was an economist, it "naturally" raised question of why women had an economic status that compared unfavorably with that of men. Here, he could have pointed out that, from 1948 to 1964, his textbook had noted that women's earnings were less than half those of men, but he did not. Instead, Samuelson noted his shock when, in 1962, comparing the incomes of his wife's graduating class at Radcliffe, on its twenty-fifth reunion, with those of the corresponding class at Harvard, he discovered that female salaries ended where those of the men began. 18 The words he used to describe what he saw echoed those he had used for over 20 years to describe the treatment of women in the electrical-goods industry. He then dismissed common explanations of the difference, noting that the women involved were "if anything, even more select in such qualities as IQ and erudition than the contemporaneous class at Harvard." He wrote of the

<sup>17</sup> E.M.M. Wood, "Letter to Paul A. Samuelson," 1970, PASP, Box 81 (NY Times Review).

<sup>&</sup>lt;sup>18</sup> Given that that the anniversary had been in 1962, eight years earlier, the shock appears to have been considerably delayed. The decreased emphasis on gender discrimination may well have been an unconscious side-effect of the increased focus on racial inequality but even if this were the case, it suggests he had not fully grasped the implications of the data on women's salaries.

experience of women who advanced in a company only to be barred from promotion beyond "assistant Vice-President." And there was no economic reason for not eliminating discrimination as the gains in national income would cover the costs of doing so. He implied that the reason for the inferior economic position of women was prejudice, such as the views for which he had apologized.

Parker, at Sweet Briar, was delighted with this response, writing:

Thank you so very much for the marvelous publicity you gave Sweet Briar! ... Copies of your Newsweek column are on the economics and public relations bulletin boards. We are most grateful!<sup>19</sup>

Even though she might have taken exception to his comment about "female liberationists [being] under no vow to be ladylike" and to his that "well-merited reproaches from Sweet implication carried more weight than her arguments, Harris also appreciated his apology, saying that his reply was a more constructive response than letters to individuals. "You were able," she wrote, "to make many other men ponder the economics of discrimination against women as well."20

While Samuelson's connection between the status of Radcliffe female economics graduates and wider issues of women's labor supply, the gender wage gap and occupational segregation remained largely accidental and isolated, a more articulated reckoning was brewing in economics, as elsewhere in US society. In the wake of the Equal Pay Act of 1963, an ensuing stream of sex discrimination cases, including the AT&T case, the Equal Rights Amendment, and the 1972 Equal Employment Opportunity Act, many professional societies were looking to reexamine their gender bias. In 1971 a caucus of women economists asserted that "economics is not a man's field," and that the Association should adopt a positive program "to eliminate sex discrimination among economists, whether employed in academic, government, business publishing or other institutions."21 The association resolved to collect data and it established a Committee to report on evidence of discrimination and to provide recommendations on measures to eliminate it (American Economic Association 1972). This was a time when radical ideas, fueled by opposition to the Vietnam War,

<sup>&</sup>lt;sup>19</sup> J. Parker, "Letter to Paul A. Samuelson," 1970, PASP, Box 99 (567).

<sup>&</sup>lt;sup>20</sup> A.S. Harris, "Letter to Paul A. Samuelson," 1970, PASP, Box 99 (567).

<sup>&</sup>lt;sup>21</sup> See Cherrier (2017) and Chassonnery-Zaïgouche, Cherrier and Singleton (2018) for histories of the foundation and the first years of the CSWEP.

were at their height. The AEA meeting that year, in New Orleans, contained session after session on discrimination. Discrimination against women might take a long time to eliminate, but the climate of opinion had changed decisively. It is thus no surprise that in the ninth edition of Economics (1973), he covered sex discrimination as well as racial discrimination. The discussion of sex discrimination might be shorter than that of racial discrimination, but both were given additional weight through being presented as a problem on which economic theory (supply and demand analysis) could provide enlightenment

#### 4. From students to female economists

As Chassonnery-Zaïgouche, Cherrier and Singleton (2018) show, the way in which economists have conceived the role of women within society has been tied to the way in which they have viewed female economists, and vice-versa. Samuelson's statements on women may therefore be highlighted by knowledge of the institutional environment in which he worked (postwar MIT) and his own interactions with women, often economists. The most important one was his wife, Marion Crawford Samuelson. According to two of Samuelson's Harvard teachers, Edwin Bidwell Wilson and Joseph Schumpeter, she was highly regarded, even though, like other women at Radcliffe, the women's college, she was subject to discrimination, such as being required to leave the library earlier than male students.<sup>22</sup> Paul thought she was smarter than Seymour Harris, whom she assisted in writing a book on social security, although he would also describe her as "unambitious."<sup>23</sup>

After an undergraduate thesis which extensively criticized John Hicks's recent notion of an elasticity of substitution, which she, like Joan Robinson, did not believe could apply to an entire economy, Marion had proceeded to apply her mathematical skills to social security, trade and, with Paul, the dynamics of population growth. In 1939, she published in the Quarterly Journal of Economics a numerical

<sup>&</sup>lt;sup>22</sup> Samuelson has also written that Taussig routinely gave women C's, and Schumpeter gave them A's, and that professors took account of women's looks when grading. For example, he wrote to Gottfried Haberler on February 20, 1992, "Also, as you know, he [Schumpeter] came from an earlier time and a European milieu where even decent people sometimes used words like 'nigger,' 'dago,' 'kike,' and 'jew-boy,' and gave grades to women according to their sexual availabilities and dexterities" (PASP, Box 36, Haberler). The discussion about Marion Crawfurd draws on Backhouse (2017).

rebuttal of the argument that a tariff on Australian manufactured goods would harm its economy (Samuelson 1939). Samuelson later recognized that her paper might had been influential in shaping what would become the Stolper-Samuelson theorem, one Marion typed or, more likely, put together from the two contributors' ideas in 1940. Her role in the making of Paul's dissertation, Foundations, also went beyond mere typing and included suggesting improvements to the mathematics. According to her 1978 New York Times obituary, Marion "retired when her first child was born in 1946." Marrying other economics students was common in Samuelson's circles, with couples of friends including, among many others, Abram and Rita Bergson, Paul and Maxine Yaple Sweezy, Shigeto and Masako Tsuru, Bob and Joan Bishop, Daniel and Alice Vandermeulen, John and Janet Chapman, and later, Robert and Bobbie Solow and James and Elizabeth Tobin (formerly Braider, see below).<sup>24</sup> He was surrounded by female economists, some of whom pursued careers in the subject, others of whom did not.

When listing fellow students, "our true teachers," he mentioned only one woman among over twenty men-Alice Bourneuf (Samuelson 1998, 1379). Samuelson later spoke highly of her achievements both in government service (in the Federal Reserve and as one of only two economists at Bretton Woods, and later running the Marshall Plan) and in modernizing the teaching of economics at Boston College. Their correspondence is limited but suggests they knew each other well, containing both gossip and requests for information about mutual friends.<sup>25</sup> It was to Bourneuf that Samuelson turned, when, after moving to MIT in 1940, he looked for a position at the Federal Reserve for one of his Swarthmore students, Elizabeth Braider. He appraised her positively:

Her primary virtue is an extremely clear and lucid mind. This shows up especially in examinations. Although I consider her to be one of the best students that I have taught, it is only fair to add that she is not much of a grind and is not the type to burn the midnight oil. I don't mean to imply that she is a butterfly, but simply that she doesn't have the "drive" of John Dunlop, John Lintner or Russ Nixon.<sup>26</sup>

<sup>24</sup> This list greatly understates the number of such couples.

<sup>&</sup>lt;sup>25</sup> Samuelson (2004) wrote Bourneuf's entry in the dictionary of notable women economists and coedited a Festschrift in honnor of her with Robert Solow and Paul Kanes. <sup>26</sup> P.A. Samuelson, "Letter to Alice Bourneuf," 1944, PASP, Box 73 (Tobin).

"However," he added, "with a grim taskmaster like yourself, this should not matter unduly." Braider had been completely responsible for examining a course in international economics that Samuelson had taught. It may or may not be significant, given the differences in their qualifications (Braider had no PhD), that he thought she would merit a salary of \$2600 per annum, whereas a few months later he explained that Lawrence Klein, who had obtained his PhD only 2 months earlier, would require \$3500 on account of being married with children.<sup>27</sup>

Klein was Samuelson's first PhD student, but the next two were women: Margaret Garritsen (later De Vries) and Loise (Mary) Freier (later Curley), who graduated in 1946.<sup>28</sup> Writing a reference for Garritsen, Samuelson described her as "not the most brilliant student that I have ever encountered, but she certainly ranks very high as compared to the graduate students whom I have known at MIT, Radcliffe, and other institutions."29 The inclusion of Radcliffe but not Harvard in this list leaves open the possibility that he was comparing her only with other female students. Two years later, when writing about her to Elizabeth Bernstein in the Treasury Department, Samuelson made it clear that he was comparing Garritsen only with other women:

I would place her in the highest ten per cent of women graduate students whom I have known in the past at Chicago, Radcliffe, and this institution. Where that would place her in the population of all graduate students, without regard to sex, is a problem to which I have paid insufficient attention and would not care to formulate even a provisional appraisal.<sup>30</sup>

It is not clear why he felt he could not compare Garritsen with men, given that he had had ample time to think about the problem. Garritsen went on to a distinguished career in the International Monetary Fund.<sup>31</sup> Samuelson's recommendation letters need to be placed in the context of other recommendation letters he wrote. Such

<sup>&</sup>lt;sup>27</sup> P.A. Samuelson, "Letter to Alice Bourneuf," 1944, PASP, Box 45 (Klein).

<sup>&</sup>lt;sup>28</sup> At about the same time, Douglass Brown was supervising another woman, Ruth Shaeffer. The next woman to graduate from MIT PhD program, was Babette Solon in 1958 (see below). Samuelson never supervised any other woman (and supervised fewer men than many of his colleagues, see Svorencik 2014).

<sup>&</sup>lt;sup>29</sup> P.A. Samuelson "Letter to Constance Warren," 1944, PASP, Box 75 (De Vries).

<sup>&</sup>lt;sup>30</sup> P.A. Samuelson, "Letter to E. M. Bernstein," 1946, PASP, Box 75 (De Vries).

<sup>31</sup> Samuelson's other female PhD student from this period, Louise Curley (Freier) went on to a successful career in the financial services industry. Samuelson kept in touch with both of them.

letters were typically more frank in their assessments than is often the case today, with frequent reference to husbands and wives of those being assessed, often expressing a view about whether they would contribute socially to the institution for which they were being considered. Thus he wrote of Lorie Tarshis, "Incidentally, he is not a fanatical Keynesian and impressed me as being possessed of good judgment. His wife is a charming woman whose mother is a successful novelist and who is herself a writer of children's fiction. I think they would be a pleasant acquisition to a faculty circle."32 Of someone else he wrote, "he impressed me as a likeable, attractive young man. His wife ... is very charming and held down a responsible position during the war. It was my impression that they would make good neighbors and genial academic colleagues."33 He also frequently commented on the appearance of men and women alike and attempted to assess personalities. For instance, he wrote of a male candidate: "However, he seemed a personable, alert chap and I think he made quite a satisfactory showing in the classroom" and "I and my colleagues found him to be personally a pleasant chap."34 Of Walter Isard, he wrote: "Personally, he is not too prepossessing in appearance although he would be a perfectly congenial colleague," and in a letter in which he strongly recommended Garristen: "Miss Garritsen is an attractive, wholesome girl whose only possible flaw is a slight tendency to overseriousness."35

Within this general tendency to mix judgments about intellectual abilities, psychology, family and looks, Samuelson nevertheless did use different language when assessing men and women. The metaphorical language he used to describe women was gendered, as seen in his recommendation for Elizabeth Braider above: she was not a "butterfly." In a supportive reference for another woman, he described her as "neither a prom queen nor a wallflower." These quotes also illustrate a pattern in Samuelson's recommendations of women economists. The qualities of those women he supports are emphasized a contrario, through contrasting them with some highly stereotyped purported feminine features. In another reference for Braider, after praising her,

<sup>32</sup> Samuelson to Richard A, Lester, June 7, 1948, PASP, Box 46, L 1946–1960.

<sup>&</sup>lt;sup>33</sup> Samuelson to Howard Bowen, March 23, 1948, PASP Box 12 (B 1939–1954).

<sup>&</sup>lt;sup>34</sup> Samuelson to Donald W. Watson, May 11, 1948, PASP Box 76, W 1942-1956; Samuelson to Phillips Bradley, December 6, 1948, PASP Box 12, B 1939-1954.

<sup>35</sup> Samuelson to Richard A. Musgrave, February 17, 1948, Box 54 (Musgrave).

<sup>&</sup>lt;sup>36</sup> Samuelson, reference to unknown organisation, February 15, 1955, PASP Box 64 (S 1957-1962, 1 of 2) (the context makes it clear this was intended as a compliment.

he wrote: "She is not the usual grim, zealous woman graduate student. Possibly this is a disadvantage from a research point of view, but from a human point of view it is undoubtedly an asset. ... were MIT to admit women to its faculty, we should undoubtedly use her as an instructor."37 And of another student, whom he praised highly in 1959, he wrote: "Rather than being a wishy-washy woman, she seems to have an independent personality."38 It is not clear whether the zealous students, butterflies, prom queens and wallflowers reflect his own views of female students, the views he believes his readers may have, or those in wider currency in his postwar academic circles.

In a 1958 letter, he outlined more explicitly his belief that women economists were on average less creative and productive than men:

Mrs. ... is quick, hard working, and has strong drive. She has had a good training. Among the many women graduate students whom I have known in the past, Mrs. ... would rate very high indeed. But candor requires me to add that fewer women than men do outstandingly creative work in my field. I should expect Mrs. ... to do top notch work but will be pleasantly surprised if she turns out to be of Nobel prize winning caliber (emphasis added).<sup>39</sup>

He therefore praised this particular student very highly whilst noting that, on average, women were not such creative economists as men. Given the skepticism expressed in his textbook about the significance of biological differences between men and women, it is not clear what be believed to be the source of this lack of female creativity. He went on to note that "One naturally watches closely after a woman graduate student gets married to see whether there is any attenuation of her research and scholarly interests," concluding that marriage had not affected the student's productivity. And in a surprising twist, Samuelson concluded the 1959 letter just mentioned with an acknowledgment of the discrimination the student he was recommending had probably suffered: "most of the Harvard people that I have talked to feel that, were it not for the sad but true fact that

<sup>&</sup>lt;sup>37</sup> Samuelson to Lawrence Smith, May 24, 1944, PASP Box 12 (B, 1939-1954). While this implies that he disapproved of MIT's rule, we have no evidence on whether he ever challenged it, something that, having the ear of MIT President James Killian, he would have been well placed to do.

<sup>&</sup>lt;sup>38</sup> Samuelson to R. A. Gordon, December 14, 1959, PASP Box 32, G 1953–1966, 2 of 2.

Samuelson, Reference to NSF, January 10. 1958, PASP Box 40, J 1940-1984, 2 of 2. The surname has been removed. Note that the reference to Nobel Prizes is not to the economics prize, which was not to be established for another decade.

prejudice against women still persists in university departments, she would have gone to a good job sometime ago."

Samuelson was more thoroughly confronted with his own biases about what opportunities could and should be offered to women economists when Margaret Hall, a Somerville College economist whom he had met on his recent sabbatical in Oxford, wrote in 1949 to ask his advice on American women she could nominate to come to Oxford on a Fulbright Fellowship. "The men's Colleges," she wrote, "will be taking up the question of inviting male economists. It seemed to me likely that there would also be female economists who might like to come!"40 This carries the clear implication that there was bias in the nomination process that needed to be corrected. Samuelson replied with an assessment of the position of women in economics: "it is a sad commentary on American economics or on your sex to have no names occur to me of women who might be available to go to Oxford even for the year after next."41 This phrasing leaves open the question of how far he blamed the situation on discrimination within the economics profession and how far he attributed it to women's choices. The latter is perhaps more likely in that he immediately went on to list some "able women economists" who would not be free to travel because they were married. They were all female economists married to other economists: Margaret Gordon, Nancy Ruggles, Maxine Sweezy Woolston and Selma Goldsmith. He then mentioned three whom he did not know personally-Mabel Newcomer, Margaret Reed and Dorothy Brady—explaining that "my acquaintance seems to be exclusively among married women of not too advanced years." He also made it clear that he was imposing the highest possible standards, for although there were many women economists "of high calibre," he could think of none "who Oxford simply cannot live without:" "The sad truth seems to be that we don't have a Joan Robinson in this country". Possibly Hall was implying criticism of his applying such high standards when she responded, "if at any time the name of someone we simply could not live without does occur to you, please let me know."42

<sup>&</sup>lt;sup>40</sup> M. Hall, "Letter to Paul A. Samuelson," 1949a, PASP, Box 36 (Hall).

<sup>&</sup>lt;sup>41</sup> P.A. Samuelson, "Letter to Margaret Hall," 1949a, PASP, Box 36 (Hall).

<sup>&</sup>lt;sup>42</sup> M. Hall, "Letter to Paul A. Samuelson," 1949b, PASP, Box 36 (Hall). The list of Fulbright award holders for 1948-50 suggests Samuelson's standards were too high (https://libraries. uark.edu/SpecialCollections/FulbrightDirectories).

Samuelson had enormous regard for Joan Robinson, an economist who had fought to establish herself in the intensely misogynistic environment of Cambridge University (see Aslanbegui and Oakes 2009). Her Economics of Imperfect Competition (1933) had appeared in the same year as The Economics of Monopolistic Competition (1933), by one of Samuelson's teachers, Edward Chamberlin, and Samuelson considered her book to be as important as his. However, whereas he considered Chamberlin to be a one-trick pony, Robinson had gone on to be one of Maynard Keynes's most important collaborators, and she had provided a fresh approach to the study of Marxian economics. In the 1950s she turned her attention to the theory of capital accumulation and growth, providing a critique of the concept of the aggregate production function that Samuelson eventually conceded was correct. Despite not having the mathematical tools that he and Robert Solow brought to the problem, she had shown their arguments on a central point of economic theory to be wrong (see Backhouse 2014). They were to tire of Robinson's persistence in repeating arguments they had contested, but this did not diminish Samuelson's admiration for her. When canvassed for views on potential candidates for the prize that the Swedish central bank was about to establish in memory of Alfred Nobel, Samuelson included her name alongside those of thirteen men of similar age and distinction.<sup>43</sup> Ten years later he was still trying to persuade the Nobel committee to consider her for the prize.44

When Hall told Samuelson about her wish to come to visit the United States (showing that a female academic could travel without her husband, contrary to what Samuelson had assumed), he was encouraging. Fulbright funds would be unlikely to cover her costs, so as well as recommending she approach the Rockefeller Foundation, he wrote of the possibility of her obtaining a position teaching at a summer school.45 He followed this up by contacting the University of Michigan, the University of California at Berkeley, the University of Illinois, the University of Minnesota and two other institutions. Most replied that their teaching was already arranged. Samuelson clearly considered her suitable to teach in Minnesota, where there might be

<sup>45</sup> P.A. Samuelson, "Letter to Margaret Hall," 1949b, PASP, Box 36 (Hall).

<sup>&</sup>lt;sup>43</sup> P. A. Samuelson, Letter to the Royal Academy of Sciences, November 4, 1968. PASP, Box 36 (Hansen). He also listed many younger men, claiming that they constituted just a sample of the many names that could have been mentioned.

<sup>&</sup>lt;sup>44</sup> P. A. Samuelson, Letter to Erik Lundberg, January 6, 1978. PASP, Box 49 (Lundberg).

an opening, giving her reasons why she should go, and explaining how she could find out more. 46 When this failed to materialize, Hall found another source of funding, and Samuelson wrote the necessary letter explaining that MIT had an interest in her research and would sponsor the visit, which took place in the summer of 1950.

Hall may have been the first female visitor to the MIT economics department, which, like many of the science and engineering departments that dominated the Institute, remained male-dominated for a long time. She did not hold an official position, but she was offered office space and a cocktail party was arranged in her honor. Three years later, Marjorie Ronaldson was the first officially recognized Visiting Fellow, followed by Frances Hutt and Loren Baritz in 1955-1956. That year, Babette Solon became the department's first female research assistant. In 1960-1961, Hall returned to MIT, this time as Visiting Professor, apparently the first woman to hold a position whose title included the word "Professor." There were no women on the permanent faculty until 1975, when Ann Friedlaender was given a joint appointment with the Department of Civil Engineering.<sup>47</sup> She was followed in 1976 by Marilyn Simon, the last female faculty appointment until Janet Currie's in 1990. 48 Aside from visitors, the small number of women in MIT economics were exclusively Research Assistants and Associates. One of these, Beatrice R. Rogers, stands out for being an "Assistant" from 1944 to 1965 (from 1951 to 1952 she was described as a "Technical Assistant"), a period of 21 years.49

<sup>46</sup> P.A. Samuelson, "Letter to Margaret Hall," 1949c, PASP, Box 36 (Hall).

<sup>&</sup>lt;sup>47</sup> Friedlaender had previously been a Visiting Professor (1972-1973) and had worked as a Teaching Assistant (1963-1964) while doing her PhD. The first woman to earn tenure at MIT was Emily Wick, in the Nutrition and Food Science department in 1968. In 1972, there were 28 women among MIT faculty (http://tech.mit.edu/V123/N3/timeline.3f.html). Hopkins 2007 argues that the first "sharp rise" in the number of women faculty in science, began in 1972 after 1971 Secretary of Labor George Schultz - an MIT trained economist, and former faculty member, ordered compliance reviews of hiring policies of women in universities. The evolution of the number of female students and faculty in economics is thus consistent with

general trends at MIT, though more lagging behind other departments.  $^{48}$  "The department is pleased to report its Affirmative Action efforts resulted in the appointment of Janet Currie," the 1990-1991 Report to the President read (p. 394). "The department maintains its concerns with increasing the representation of women and minorities in the economics profession. Although we have hired a woman junior faculty member, our entering graduate class had half as many women entrants as the previous year," it continued.

She may have been there longer, for the staff/faculty list used (MIT Archive, AC395, Box 2, Department Meeting) does not contain data for 1966-1999. It is not clear what status a "Technical Assistant" had though being a member of the American Economic Association suggests she was an economist.

This pattern, of a small number of women, was echoed in the PhD program: the high proportion of women in the 1940s proved to be a brief and tiny flurry, presumably attributable to the war and the shortage of male candidates, for after Garritsen and Freier, it was 12 years before the next, Babette Solon, supervised by Charles Kindleberger, in 1958. It was not until the 1960s, after MIT's first oncampus women's dormitory opened in 1963 (Bix 2000) that more women started, slowly, to appear in the list of graduating students. However, this early experience combined with that of his contemporaries, ought to have given Samuelson first hand evidence that economics did not have to be a man's world, and that under the right circumstances women could thrive. He remained in touch with Garritsen until her death, one letter hinting that he might have recognized the discrimination women faced. After providing advice on people she might contact to obtain financial support for a project she was proposing, he noted "It may not be easy for a woman working at home to get a grant, but I certainly wish you luck."50

#### 5. Conclusions

Women who were close to Samuelson remember his conduct towards them as being exemplary, supporting their careers and never being condescending on account of their gender. This memory is fully consistent with the evidence we have been able to find in the archive. Even later in his life, he would openly support equal treatment of men and women in the field. After Friedlaender, then chair of the Committee for the Status of Women in the Economic Profession, defended a failed motion to move the 1978 and 1979 AEA annual meetings outside states which would not ratify the Equal Right Amendment before the executive committee, Samuelson wrote on behalf of 26 MIT economists to support the move.<sup>51</sup> Furthermore, he was largely ahead of his time in his textbook treatment of discrimination against women.

In view of that it is tempting to dismiss his deprecatory remarks about women as being simply casual and thoughtless, even if we share

<sup>50</sup> P.A. Samuelson, "Letter to Margaret de Vries," 1958, PASP, Box 75 (De Vries).

<sup>51</sup> The AEA "should make a formal statement that it will not hold future conventions is states that have not ratified ERA" Samuelson urged, adding "we understand that many other associations ... have managed to change their meeting sites, and we urge the American Economic Association to take a positive stance on this important issue" (in Koopmans 1979).

his view that they were indefensible. However, to jump to that conclusion would be premature. He made such remarks more than once and it does appear that be believed that, on average, women were less able than men. His assumptions about women in general were revealed when he praised, and strongly supported, women who did not conform to what he saw as the norm. 52 There is a parallel here with the attitude of Samuelson's teacher, Joseph Schumpeter, toward Jews. Schumpeter held that Jews were "early bloomers" who would not live up to their early promise, and yet was very supportive of individual Jews such as Samuelson. In the same way that Schumpeter did not allow the high ability of the Jews he knew personally to undermine his prejudices about Jews in general, Samuelson did not allow his considerable experience of female economists to challenge his prejudices on women in general until he made remarks that were challenged. When challenged, he was quick to admit the mistakes he had made.

It would seem likely that his experience of the prejudices he and Marion faced when they were at Harvard, where there was not only anti-Semitism and gender discrimination but also prejudice against Catholics, is one reason why he treated discrimination on grounds of gender and color more extensively than did rival textbooks (in the late 1950s John Kennedy's election campaign brought the significance of anti-Catholic prejudice to the fore). However Samuelson's coverage of discrimination and his description of a gendered society were also the result of his having a vision of what an elementary textbook should cover which differed from the visions of his rivals. In making his book very institutional and in engaging with his student readers by starting with what they knew-the family-before covering firms and government, and in doing this in a very concrete way, he drew attention to many ways in which gender mattered in society, as when he explained that women were responsible for much of the nation's spending and when he wrote of male lawyers having female secretaries. Most of these remarks were descriptive and expressed in neutral language because, most of the time, gender was not the point with which he was concerned. He disapproved of discrimination and made it clear that occupational segregation was a way in which discrimination was maintained. Conservatives accused him of being a Communist sympathizer, albeit on account of his Keynesianism as

The phrase "on average" is used loosely, ignoring technical issues relating to the shape of the distribution and the part of the distribution to which he was referring.

much as because of his social views, but he supported the competitive, mixed economy of the United States despite its imperfections. He saw the need for government action, supporting the New Deal, and he pointed out that civil liberties were higher in socialist Britain than they had been at some periods in recent American history. He was a liberal who did not want to overturn the social order. Nevertheless, despite his students and fellow economists including many highly intelligent and successful women, and despite recognizing the strong evidence that women suffered from discrimination, he accepted many conventional assumptions about gender roles and stereotypes and biases concerning them.<sup>53</sup>

The contrast between the way in which Samuelson wrote about women in general and the way he interacted with women is encapsulated in an exchange that he had in 1970. It began when a student wrote to complain about remarks made in his textbook. We quote her letter at length because it expresses very forcefully the frustrations of many women entering economics.

Your statement, "Of course, there are always a few women and cranks, longer on intuition than brains ..." in the seventh edition of your basic text (p. 377) has so upset me that I must write you before I finish studying for my finals.

How can a supposedly responsible intellectual such as yourself lump "women and cranks" together in such a manner? How, as an economist, can you continue a trend to ridicule an element of our society which, if allowed to do so, could become much more important as a factor of production? Or perhaps you wish women to continue to do the work of men for half the pay. Or do you really feel that our intuitive minds are only suited for home and hearth.

We are human beings first. I am a person — my sex happens to be female. I am as capable as any man of cool logic. Do women have to group together and burn their bras to bring attention to what you are in effect saying about us? Do we not have a right to expect more than that from the academic community? Or at least from one of your standing in that community?

What is so very bothersome about your slight is that you so strongly influence young minds. I don't need to add to the accolades you have received for your work. Your Economics presents the subject with pristine clarity. It reinforces my commitment to become an economist.

<sup>&</sup>lt;sup>53</sup> We have found no sign that he was ever involved in initiatives aimed at raising the number of women students and faculty at MIT (see Bix 2000).



Do you really feel that 'women and cranks' should be lumped together? It's so hard to believe that you do.<sup>54</sup>

Samuelson might have responded by explaining why he had included women here, but he did not. He offered an unreserved apology, in his typically self-deprecating manner: "You are absolutely right. Mea culpa. At least, in the race between experience and senility, I do occasionally learn something. ... Do study economics. Perhaps the best economist in the world also happens to be a woman (Joan Robinson). There are far too few women in this profession."55

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<sup>&</sup>lt;sup>54</sup> Nancy K. Hyde to Samuelson, May 21, 1970, PASP Box 35, H, 1965–1976.

<sup>&</sup>lt;sup>55</sup> Samuelson to Nancy K. Hyde, May 26, 1970, PASP Box 35 H, 1965-1976. We have not been able to establish whether this reply was enough to encourage Nancy Hyde to pursue a career as an economist.



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