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# WOMEN AND THE LANGUAGE OF STATISTICS IN LATE-NINETEENTH-CENTURY FRANCE

## Reading The Graphs Of Madame Pégard\*

*Hélène Périvier and Rebecca Rogers*

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**ABSTRACT:** This article considers how women adopted a “scientific” statistical language at the end of the nineteenth century to draw attention to their role in the moral and social economy. It explores in particular the messages contained in *La Statistique générale de la femme française*, a series of eighteen murals that the moderate feminist Marie Pégard sent for exhibition at the Woman’s Building at the Chicago World’s Fair in 1893. The article begins by considering the place statistics held in France in the final decades of the century within the context of universal exhibitions. It then examines Pégard’s choice of quantified categories of social analysis to convey a sustained argument about the comparative weight of women in a modernizing French economy. The article seeks to understand how contemporaries read and interpreted the graphs, and how this mode of rendering visible the issue of women’s work played into the politics of an emerging feminist movement.

**KEYWORDS:** feminism, gender, statistics, women’s labor, world exhibitions

The Woman’s Building at the Chicago World’s Fair in 1893 attracted unprecedented attention for its lavish presentation of women’s achievements in the fine arts, as well as in the domestic, artisanal, and industrial arts.<sup>1</sup> No longer the muses for male artistic genius, women were on show in this building for their skills and for the ways their labor contributed to national prestige. Graphic statistics played an important role within this carefully crafted international setting, serving as an “informational backbone” to the esthetic presentations of female artists.<sup>2</sup> Assembled within



two record rooms, these statistical presentations provided a didactic message about women's contribution to what was described as "universal labor." The elaborate French collection of statistics was the recognized highlight of this exhibit, although contemporary black-and-white photographs of the French record room do little justice to the overall effect.<sup>3</sup> Visitors, statisticians, and even the head of the US Department of Labor, Carroll Wright, admired the virtuosity on display. The French journalist Thérèse Bentzon described the exhibit as "more complete than any other, destined to serve as a model in foreign countries for surveys of the sort."<sup>4</sup>

Marie Joséphine Pégard, née Champigneulle (1850–1916), was responsible for this *Statistique générale de la femme*. But the French were not alone in believing that statistics were powerful instruments in the rendering of social and economic realities. Indeed, Bertha Honoré Palmer, president of the Board of Lady Managers for the Chicago Fair, commissioned the participating nations to send statistics about women. As Pégard testified after the exhibition, the Board of Lady Managers intended the Woman's Building "to show women the part they play in universal labor and the satisfactory results they have achieved in manual, industrial and artistic work ... and in this fashion to give them the confidence in themselves that long habits of social inferiority have deprived them of acquiring."<sup>5</sup> The presented statistics not only quantified women's past achievements, but also were intended to bolster women's belief in what they could achieve in the future. At the same time, this evidence of women's contribution to the industrial economy had a feminist message: the statistics were expected to develop an argument for the "just division of salaries, by showing that women's work is equal to that of men's; or that it could become so."<sup>6</sup> This broader political and transnational project explains the existence of Pégard's *Statistique*.

Reading these graphs today, we offer insight into how women adopted the modern language of social statistics to make a political argument about women's role in the moral economy. Carefully crafted charts, maps, and tables depicted women as mothers and workers, producing children but also objects, contributing their labor but also their savings to the well-being and the strength of the French nation. This message about women's work, while scarcely revolutionary, nonetheless held threatening overtones for a patriarchal polity experiencing the first onslaught of an organized women's movement. Displaying the evidence of women's work implicitly challenged men's prerogatives.

We begin by considering the place that statistics held in France in the final decades of the century and the rhetoric on women's labor proposed by male economists of the time. Pégard's *Statistique* relied on contemporary languages of social observation and conveyed a sustained argument

about the comparative weight of women in a modernizing French society—an argument that ran against the dominant vision of women's role. We illuminate the political and economic arguments that lay behind the choice of quantified categories of social analysis. Through a focus on the graphs relating to education, work, and savings, we show how women adopted the tools of the social sciences for political purposes in the setting of an international exhibition, and in the context of an emerging feminist movement.

### The Emergence of Statistical Language

Since the middle of the seventeenth century, men had gathered in learned societies to debate contemporary issues in a world where scientific reasoning increasingly seemed to offer the key to resolving social problems, especially those related to industrialization and its accompanying woes. These societies were privileged places for the development of statistical methodologies that were then deployed in studies defending a range of political positions. Although educated women played an important role in salon society in France, they were systematically excluded from most nineteenth-century learned societies. As a result, the science forged within these gatherings was durably gendered as masculine.<sup>7</sup>

Pégard's *Statistique* was clearly nourished by the thinking promoted within societies associated with the emerging social sciences; notable influences included the Société internationale des études pratiques d'économie sociale (SIEPES), founded in 1856 by the engineer Frédéric Le Play (1806–1882), and the Société de statistique de Paris, founded in 1860 by the liberal economist and former Saint-Simonian Michel Chevalier (1806–1879). In these societies and others, men such as Le Play and Émile Cheysson brought the tools of statistics to bear on their debates about the political and social economy. By the final quarter of the century statistical reasoning was widespread, although at times contested, in the fields of anthropology, sociology, demography, and economics. In the Société de statistique de Paris, liberal economists cooperated with the administrative elites in the French government to create a statistical language that offered facts as a way of understanding and governing French society.<sup>8</sup>

By the 1880s, the society's publication, the *Journal de la société de statistique de Paris (JSSP)*, under the presidency of the social scientist Cheysson, produced studies on a wide range of subjects that illustrated how intellectuals, administrators, and politicians sought to interpret and resolve social problems through statistical reasoning. Cheysson was a disciple of Le Play who promoted a Catholic world vision where private ini-

tatives and associations accompanied state action. His use of statistics did not aim to improve methods and statistical tools, but rather to convey a moral point of view; in this sense he was an amateur statistician.<sup>9</sup> The intellectual and political postures of these men placed them as central figures in the production of the discourse about French industrial power that figured so prominently in the universal exhibitions of the second half of the century. Le Play played an important role as general commissioner of two French universal exhibitions in 1855 and 1867.<sup>10</sup> Le Play's influence was evident in the emergence of the category of "social economy" in the Paris exhibition of 1889, designed to offer visitors a vision of the moral and material condition of workers, as well as suggestions for improving these conditions.<sup>11</sup> Exhibitions became an arena where international scientific exchanges joined with national political objectives to promote statistics as an emerging science and a tool of public management.

The international scientific community broadly shared this belief in numbers, giving rise in 1886 to the creation of the International Institute of Statistics.<sup>12</sup> The members who attended these international congresses sought to disseminate their knowledge beyond a narrow range of specialists, particularly at universal exhibitions. Economists, demographers, and civil administrators used graphic representations of statistical figures to communicate purportedly scientific ideas and information to a broader French and international public. These statistics played a political and pedagogical role for national and international audiences.<sup>13</sup> Convinced that graphic statistics "spoke to the eyes" of the general public that visited these exhibitions, the promoters also viewed them as a powerful tool for conveying scientific knowledge about health and safety in an industrial age.<sup>14</sup>

Cheysson sought to spread knowledge about the social economy through the use of graphic statistics, notably in exhibitions. In his first article for the *JSSP*, entitled "Les méthodes de statistique graphique à l'exposition universelle de 1878," he presented this "new science" as a "method that had the advantage of speaking both to the senses and to the mind, as well as painting for the eyes, the facts and laws that would be difficult to perceive in long numerical tables."<sup>15</sup> In his view, the universal exhibitions represented an ideal location for the presentation of graphic statistics: "A diagram is not German, English, or Italian; everyone is immediately capable of understanding its relations of measurement, surface, and coloring. One can indeed say graphic statistics are truly a universal language that allows scholars from all countries to exchange their ideas and their works freely, for the great profit of science itself."<sup>16</sup> He offered a descriptive classification of orthogonal and polar diagrams, before addressing in detail various types of cartograms that

allowed scientists to locate phenomena geographically.<sup>17</sup> As director of the Service des cartes aux plans et de la statistique graphique of the Ministry of Public Works, Cheysson was well placed within both the civil administration and the emerging social sciences to defend a use of statistics in universal exhibitions that carried political weight in emerging liberal republican politics.<sup>18</sup>

In 1889 statistics on economic, technical, and financial matters were on prominent display throughout the exhibition in Paris, thanks in part to the creation in 1878 of a series of *Annuaire statistiques* by the Service of General Statistics that provided readily available material.<sup>19</sup> In the Palace of Liberal Arts, the Ministry of Commerce and Industry devoted an entire floor to "General Statistics" with graphic representations of French society (comparative death rates, comparative levels of education at marriage, etc.) and a statistical album, which presented eighty-eight maps and fifteen chromolithographic diagrams.<sup>20</sup> As the demographer Jacques Bertillon, who was in charge of statistics for the City of Paris, put it: "Figures speak to the eyes, and their language is so clear and so demonstrative that it is understood with no previous training."<sup>21</sup>

By the end of the nineteenth century, graphic statistics had become a familiar language for the organizers of universal exhibitions.<sup>22</sup> Engineers in Western Europe and the United States turned with enthusiasm to graphic representations of social, economic, and demographic realities, designing maps in particular that could both quantify and locate data. As a result, it is unsurprising that statistics would be prominently on display at the world's fair in Chicago in 1893. More unusual, however, was the effort to focus on women as a statistical category. In the Woman's Building, which attracted such attention that year, women's cultural, artistic, and industrial productions were exhibited alongside graphic representations of their contribution to the social and moral economy of the nation.

### The Question of Women's Labor

From the outset, learned societies had addressed topics that dealt with women. Male economists not only debated the use of statistics but also questioned the sexual division of labor and the place of women in the economy, focusing in particular on women factory workers.<sup>23</sup> At mid-century, as Joan W. Scott has shown in her analysis of the *Statistique de l'industrie à Paris, 1847-1848* prepared by the Paris Chamber of Commerce, the categories of classification used to characterize the industrial world were part of a broader, thoroughly gendered political discourse.<sup>24</sup> The authors of the report used numbers and statistics to impose order on

the industrial world, defining the good worker and the moral family in the process.

Although men wrote the majority of early texts about women workers, a few enterprising women had begun to enter the discussion before Pégard's initiative in the early 1890s. Julie-Victoire Daubié, who in 1861 became the first French woman to pass the *baccalauréat*, was also the first woman to write for the liberal *Journal des économistes* and the *Économiste français* in the 1860s. Author of *La Femme pauvre au XIX<sup>e</sup> siècle* (1866), Daubié marshaled history, legislation, and statistics to illustrate women's inferior status in the existing political and moral economy.<sup>25</sup> Her focus on working women and women's labor was pursued less than a decade later by Paul Leroy-Beaulieu<sup>26</sup> with his book *Travail des femmes au XIX<sup>e</sup> siècle* (1873), testimony to the enduring polemical approach to understanding women's work.<sup>27</sup>

In the second half of the century, both economists and sociologists used "scientific language" to analyze women's economic and reproductive role. The *fact* of women's industrial labor was increasingly subject to the new methods of scientific reasoning, but it never lost the underlying moral preoccupations that governed such studies. Already in 1865 the Leplaysian Society of Social Economy (Société internationale des études pratiques d'économie sociale, or SIEPES) organized a discussion on the topic of "morality and seduction within the workplace." Two decades later, in 1884, the Société d'économie politique debated "Where is woman best positioned from an economic point of view?"<sup>28</sup> In the networks of intellectual sociability that spurred a range of social sciences at the end of the century, arguments about women's work revolved for the most part around women's position within the family and fears that female salaried work would contribute to falling fertility rates and immorality in the working classes. Most economists defended the ideal of the male breadwinner as the only way to ensure reproduction, tackle poverty, and prevent amoral behavior. By the 1880s, however, there was widespread recognition that women's employment outside the home was inevitable for a vast number of women, including wives.

This intellectual context is indispensable for understanding how the French responded in the early 1890s to the American insistence that women's work occupy a central place within the World's Columbian Exhibition being planned for Chicago in 1893. By applying the language of statistics to the role of women in French society, Pégard's album was subversive. It projected a different image than the one promoted in (male) mainstream venues.

### Producing *La Statistique*

In Chicago, Bertha Honoré Palmer, as president of the Board of Lady Managers, was in charge of organizing the exhibitions within the Woman's Building. Like her male counterparts for other exhibits, Palmer drew on an existing scientific grammar to craft her vision of the Woman's Building—particularly with respect to representations of women's work. Appointed on 25 April 1890, she spent three years locating women to participate in juries where women's work was on display, contacting exhibitors, and providing instruction for the foreign exhibitors.<sup>29</sup> Palmer asked for material that highlighted the social condition of women in their country. She specifically asked each national committee "to enlarge upon the work of statisticians and make a thorough canvass in order to discover for [themselves] the condition of women, and especially the amount of child labor employed, the proposition of wages that women get for their share of the world's work ...."<sup>30</sup> Pégard's *Statistique de la femme* responded to this request for statistics. Within the Board of Lady Managers, Anna Roosevelt (the sister of future President Theodore Roosevelt) chaired the committee on statistics, assisted by Florence Lockwood of the New York board, newspaperwoman Mary Gay Humphries, and Margaret Finn, a factory inspector. This organization in itself testifies to the transnational and cross-class commitment among progressive women to use statistics to promote their cause.<sup>31</sup>

In France, a committee of women was constituted under the presidency of Mme Carnot (the wife of the French President) on 8 July 1892, less than a year before the opening of the exhibition; on July 15, Mme Pégard was appointed its secretary.<sup>32</sup> She would in effect do the work, while the committee, composed of notables, provided the necessary symbolic capital for the success of the French exhibit.<sup>33</sup> As Pégard's final report documented,

[she] proposed to the committee to present, first of all a synthesis in graphic form—something addressed to the eye—showing woman's situation compared with that of man in the various general aspects of society; that is to say, in taking a general view of the population with regard to celibacy, marriage, family bearing, vitality, mortality, emigration, immigration, etc.<sup>34</sup>

Drawing on the resources of the Ministry of Commerce and Industry and the bureau in charge of statistics, Pégard sent to Chicago eighteen wall murals, measuring 2m65 in length by 1m55 in height, which contained 139 charts, maps, and diagrams detailing women's condition in France.<sup>35</sup> She also sent two albums, one containing another series of graphic statistics on welfare establishments for women and the other on women's work-

ing conditions in large public offices and in railway companies. The second part of the French exhibit presented the results of women's labor in the area of education, philanthropy, work, and art; these exhibits also included statistical surveys.

While other countries, and especially the United States and Belgium, also produced statistics for the Woman's Building, the French statistics were far more detailed and elaborate, building upon statistical expertise already evident in earlier universal exhibitions. Pégard was largely responsible for the success of the French exhibit, although she neither conceived nor executed the remarkable series of charts, diagrams, and maps that received such praise at the Fair's closure. Her published report of the French women's committee acknowledged the cooperation she received from "a variety of Ministries, especially the Ministry of Commerce and Industry." She directed special thanks to the "devoted help" of M. Turquan, head of the Bureau of General Statistics of France within this ministry, who helped to expedite the production of these tables in a mere five months.<sup>36</sup>

The archives of the Ministry of Commerce offer a glimpse of the process behind the production of these statistics. In December 1892, French General Commissioner Camille Krantz reported on the preparation of the women's committee. Following Pégard's decision to synthesize the contemporary situation of women in relation to men, he noted

I [C. Krantz] was responsible for confiding the execution of these tables and diagrams to a person who was well versed in this very particular work. I chose M. Turquan, the head of the bureau of accounting and statistics for the Ministry of Commerce and Industry, who submitted a project that the committee approved in its last meeting.

Krantz went on to explain that Turquan charged 2,500f to produce one hundred statistical tables "following the precise request of the committee."

The statistician hired the draftsman, M. Hugel, to draw in the titles and texts for the different tables, for an additional cost of 1,000f.<sup>37</sup> The surviving correspondence makes clear that Mme Pégard suggested topics for graphic representation and provided monographs that allowed Turquan to extract statistics. In this sense, she was indeed the "author" of the *Statistique*. But she also drew on available statistics from the population census or from studies about savings accounts.

The statistician Victor Turquan played a central role in the making of Pégard's *Statistique*. Unlike Pégard, Turquan did attend the Chicago World's Fair and presented the albums about women's work in France at the congress of the International Institute of Statistics, which was being held at the same time.<sup>38</sup> His presentation, however, focused on the tech-

nical aspects and eschewed a more political message. Similarly, his contributions to the *Journal de la Société statistique de Paris* revealed sensitivity to changing social expectations with respect to women, but without ever abandoning the scientific neutrality of his statistical gaze.<sup>39</sup>

There is evidence elsewhere that his contribution to the *Statistique* was based on a conviction that women's salaried work was important to the French economy. In 1893, Turquan published a career guidance manual that he addressed, unusually, to both sexes: the *Guide pratique des jeunes gens des deux sexes dans le choix d'une carrière*.<sup>40</sup> In this manual, he directed his advice to people who had completed their primary education and had obtained at the least the *certificat d'études primaire*. Although most of the *Guide* concerns male careers, several sub-chapters describe jobs that are "open to *dames* and *jeunes filles*." Contrary to expectation, Turquan discouraged careers in teaching and civil service, which were traditionally open to educated women; rather he directed women toward administrative and commercial positions "outside of the state": in banks, in the railway industry, and in commerce. Turquan's *Guide* resists gender typing in jobs—particularly in comparison with the guides that would develop in the interwar period—adopting throughout the same sort of neutral posture evident in his treatment of statistics. But the very fact that he emphasized the importance of orienting girls toward careers outside teaching, as well as his concern to encourage technical and commercial education for both boys and girls, testifies to an ideological positioning close to that of the liberal republican center, which supported business, industry, and individual enterprise. Elements of this positioning are clearly evident as well in Pégard's *Statistique*, as a closer examination of the graphic statistics themselves reveal.

Still, the nature of the graphic statistics bears the clear imprint of a contemporary vocabulary about the social world forged within learned societies. Civil administrators and social scientists used statistics to tell a story about French society that reflected a Leplaysian understanding of the social economy in which industry thrived thanks to familial productivity. Pégard's contribution to this story, assisted in her efforts by Turquan, lay in placing women at the center of the analysis, forcing contemporaries to see their significance. In the process she produced a gendered analysis of the working world without explicitly stating the political work it accomplished.

Pégard did pen a fifty-five page official report of the French exhibit in the Woman's Building, as well as a brief description in English that appeared in Maud Howe Elliott's collection of essays about the Woman's Building.<sup>41</sup> The latter text emphasized the originality of the French statistical murals: "The committee has drawn up the first statistics ever essayed

of the demographic part played by women in social economy."<sup>42</sup> Still, the tenor of women's role was not spelled out clearly, as Pégard mainly just described the organization of the French exhibit, emphasizing the comparative male/female nature of the charts and the ways they revealed the economic functions of women.

The official report was far more explicit about what the statistics were expected to demonstrate. The American Board of Lady Managers, Pégard wrote, "sought to create networks of solidarity between women, to establish relations of protection and sympathy between upper-class women and those who must struggle to survive, often without help."<sup>43</sup> By showing the importance of women in a nation's industrial production, Bertha Honoré Palmer hoped to show the need to develop their technical education to improve their subordinate position.<sup>44</sup> Above all the Americans sought to drive home a political message about the need to establish a just salary for women. Writing to Mme Carnot, the French president's wife, Palmer argued that the Record Room in the Woman's Building, through its "graphic charts," would make women's role in the social and political economy of every nation "a matter of governmental study and investigation."<sup>45</sup>

Pégard, by contrast, sought to describe and quantify women's contributions without necessarily offering suggestions about what should be done to improve their situation. Beginning with the available demographic tables, Pégard then ordered a whole series of investigations on the position that women occupied in agriculture, industry, the administration, and teaching. Some of the results were then translated in graphic terms on the murals, while others were grouped together in separate albums.<sup>46</sup> For Pégard, the *Statistique* was of obvious interest "because it marked precisely the state of the question at the end of the nineteenth century."<sup>47</sup> Unlike Palmer, however, at this stage she made no claims of how this might help improve women's condition, nor did she explain what the results of her surveys revealed. Adopting an ostensibly neutral position with respect to the potential political purpose these findings might serve, she positioned the *Statistique* as an exemplary intellectual exercise that other countries might adopt:

The Board of Lady Managers and the expert members of the International Institute of Statistics were all struck by the usefulness of this study. At the Congress on Statistics held in Chicago in 1893, M. Carroll D. Wright, the director general of the Bureau of Labor, and M. Gould, temporarily working for the Department of Labor, both offered the most flattering praise, only regretting that France was the only country to have produced such significant results.

They expressed their wish that this work would be given ample publicity and that a copy would be given to the Museum of Social Economy being created in

Chicago. Mrs. Palmer immediately began the necessary steps to obtain a copy from the [French] General commissioner.<sup>48</sup>

Although there is no sign such a copy was made (nor did the museum see the light of day in Chicago), it is striking that Pégard made no statement about what the statistics might accomplish in improving women's status, be it through public policy or private initiative. Indeed, her seemingly cautious presentation appears to mirror that of Turquan, who helped her compile and present the statistics. Like him, she believed the graphic presentation of compiled facts told a story that did not require further explanation.

### Reading the *Statistique générale de la femme*

Marie Pégard's use of the language of graphic statistics can be read on one level as an effort to adopt the voice of scientific objectivity for the purpose of advancing knowledge, like her male counterparts were doing in learned societies. This would appear to be the posture she maintained when describing the French contribution to the Woman's Building. On another level, however, the *Statistique* clearly told a story that specialists recognized as political. By focusing on the graphs dealing with education, work, and savings, we explore the contours of this story, showing how Pégard's graphic language positioned women squarely at the epicenter of French social and economic transformations.

While the large murals presented at the exhibition apparently no longer exist, a considerable number of the tables (101 out of the original 139) were reproduced and bound within an album presented for the Prix Montyon in 1896.<sup>49</sup> The eighteen murals on display at the exhibition presented a story about women in France that began with their demographic weight (34 tables) and ended with a mural about official recognition of women's merit.

The focus on demographic aspects reflected a specifically French preoccupation at the turn of century, as declining birth rates generated much public debate in political as well as intellectual circles. The rest of the murals went on to describe the role of women in emigration and immigration, including their weight in the workplace; their role in education; their position in the liberal professions, civil administration, and welfare; and the quantity of their savings.

**Table 1.** Content of murals sent to Women's Building in Chicago (1893)

Mural #	Title of mural	# of graphs, tables or maps per mural
1	<i>Vitalité et mortalité de la femme</i>	6
2	<i>Part de la femme dans la population générale (Tableau I)</i>	6
3	<i>Part de la femme dans la population générale (Tableau II)</i>	7
4	<i>Vitalité et fécondité du mariage</i>	15
5	<i>Rôle de la femme dans l'émigration et l'immigration</i>	11
6	<i>Condition de la femme toutes professions réunies (Tableau I)</i>	6
7	<i>Condition de la femme toutes professions réunies (Tableau II)</i>	6
8	<i>Rôle de la femme dans les professions diverses</i>	6
9	<i>Rôle de la femme dans l'agriculture</i>	6
10	<i>Rôle de la femme dans l'industrie (Tableau I)</i>	6
11	<i>Rôle de la femme dans l'industrie (Tableau II)</i>	6
12	<i>Rôle de la femme dans l'enseignement</i>	7
13	<i>Instruction de la femme</i>	6
14	<i>Rôle de la femme dans les professions libérales</i>	9
15	<i>Rôle de la femme dans l'administration</i>	17
16	<i>Rôle de la femme dans l'assistance, la protection de l'enfance et la mutualité</i>	7
17	<i>Épargne de la femme</i>	10
18	<i>Récompenses nationales</i>	2
	<b>Total</b>	<b>139</b>

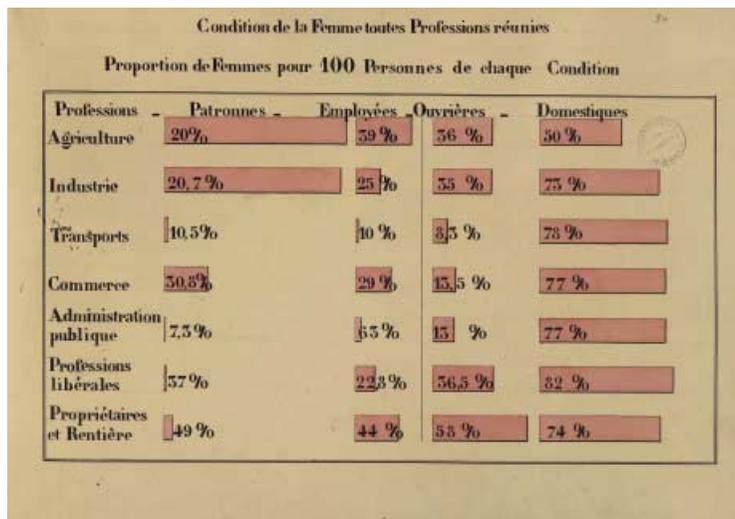
Source: Rapport Pégard, 36–42. See note 5 for full reference.

Over all, the *Statistique* reproduced in graphic form arguments that feminists at the time were debating. Women were presented as mothers increasing the birth rate (through demographic tables), mobile elements of the workforce (through tables on emigration and immigration), and active participants in the working world as both workers and employers (through tables of women in agriculture, commerce, and industry). The murals also showed women contributing to the forces of social progress (through tables on schools and the number of schoolteachers). Finally, they showed women's contribution to the social economy (through tables on their welfare and savings practices). By ending with women's medals one could conclude that the *Statistique* presented a tale of women's vital importance in French society: as mothers, wives, workers, bosses, students, educators, and savers, women were finally being recognized for what they were worth, and were getting medals in recompense. A more careful analysis of the tables tells a more nuanced tale.

In response to the Board of Lady Managers' request to show women's contribution to the workshop, Pégard's collection of murals focused heavily on women's place in the labor market. Figure 1 below illustrates the complexity of the visual message on display. While women were present as

employers and employees (notably in agriculture, industry, and commerce), they were over-represented as servants in all sectors of the economy.

**Figure 1.** The condition of women in all professions



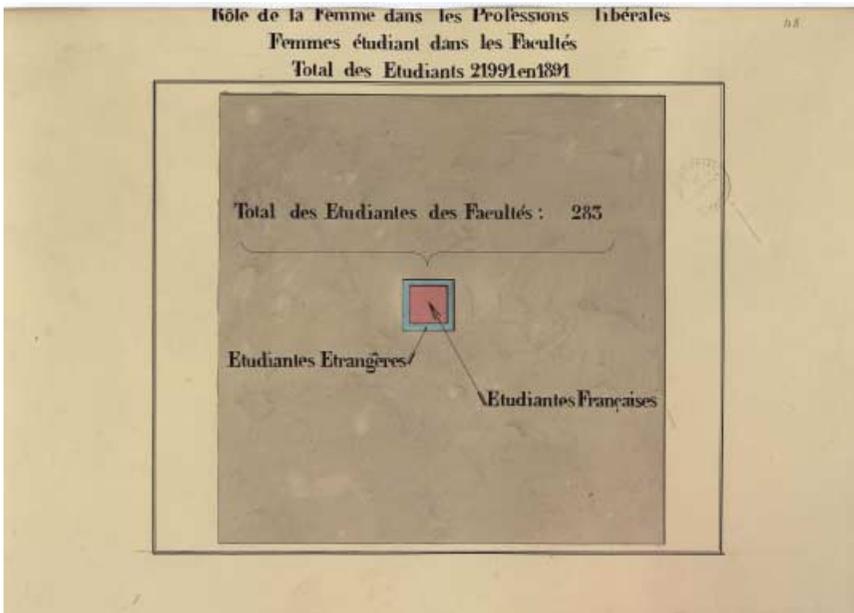
Source: Bibliothèque de l'Institut de France (Paris), *Statistique générale de la femme en France*, Madame Pégard, Cote MS 3467, n°54.

Other maps reproduced this information geographically, at times with considerable precision. These show, for example, that women employers were comparatively more present in Brittany than in the north of France, or that proportionally there were far more women than men servants in Paris, the Southeast, or Corsica.<sup>50</sup>

The *Statistique* also addressed the issue of women's salaries, which was an explicit request from Bertha Honoré Palmer. Two tables gave information about servants' wages and the salaries of women in small industry, while five maps showed the differences between the salaries of women agricultural workers in the summer and the winter, depending on whether they were fed by their employer or not.<sup>51</sup> The maps revealed that women in agriculture earned far less money than those in small industry. Like Leroy-Beaulieu's extensive publications on the subject, no maps or graphs offered comparative information about men's salaries.<sup>52</sup> Rather than highlighting inequalities, the murals used statistical language to present the range of women's labor: in agriculture, industry, teaching, the liberal professions, administration, and child welfare or mutual insurance. The intent was clearly to document the extent of women's contribution to the economy, not to denounce the gender pay gap.

Not surprisingly, murals concerning education reinforced women's association with charity and childhood. Three murals treated the "role of women in teaching," "women's instruction," and the "role of women in the liberal professions." Maps dealing with primary schools showed where women schoolteachers were most present; other maps revealed the average number of girls educated per teacher, and the number of nursery, elementary, and coeducational schools. Graphs illustrated the historical progression of girls' schools and the growth in the number of women obtaining the *brevet de capacité* compared to men. (This diploma was necessary to open an elementary or nursery school.) Graphs and maps also traced the results of schooling through comparison of male and female literacy rates over time. Together this information suggested that elementary schooling in France was producing a more literate workforce and that women were active participants in this process as school teachers themselves. The statistical information about secondary education for women of the middle classes was presented separately in the mural on "the role of women in the liberal professions." As with the murals on work, increased access was most prominently on display rather than examples of inequalities.

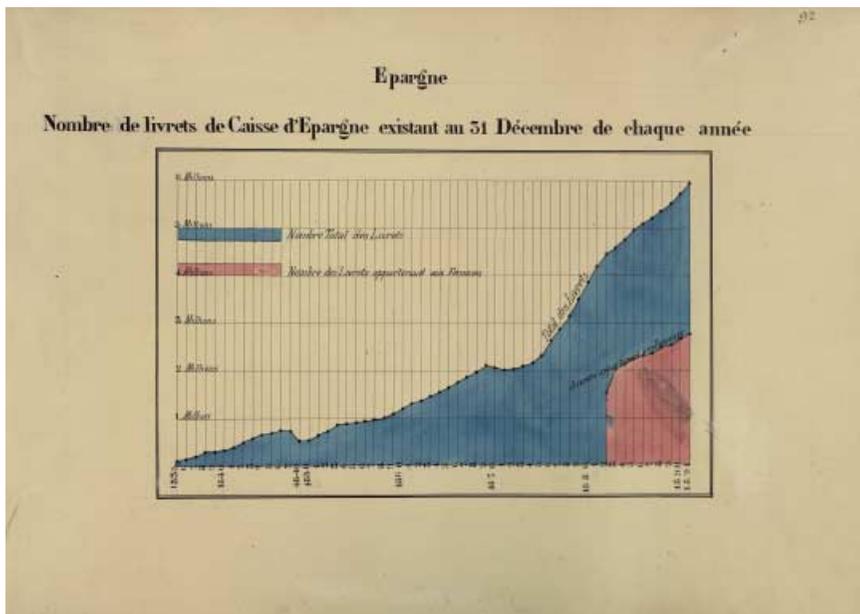
**Figure 2.** The role of women in the liberal professions: Women studying in the Faculties



Source: Bibliothèque de l'Institut de France (Paris), *Statistique générale de la femme en France*, Madame Pégard, Cote MS 3467, n°48.

The nine maps and diagrams on women's role in the liberal professions charted the growth in secondary schools for girls, the number of secondary school students, and the number of women artists having shown their work in exhibitions, among others. But only the diagram about women studying at the university explicitly compared men and women (Figure 2). French women constituted an insignificant minority in the faculties—out-numbered even by foreign women students, in an overwhelmingly male university.<sup>53</sup> Given the small numbers of women students, one could conclude that the liberal professions were still relatively closed off to women. But the absence of more systematic gender comparisons highlights the difficulty of inferring messages from the juxtapositions on display.

**Figure 3.** The number of savings passports existing on December 31 of each year



Source: Bibliothèque de l'Institut de France (Paris), *Statistique générale de la femme en France*, Madame Pégard, Cote MS 3467, n°92.

Mural seventeen (out of eighteen) dealt with women's savings and followed a mural that recounted women's role in social welfare. Taken together, these two murals would have conveyed a politically conservative message about how women contributed to the social economy, although it is difficult to judge if this was Pégard's intent. Undoubtedly, the wealth of information about savings was due to the availability of such statistics.

Beginning in 1835, French law required savings banks (*caisses d'épargne*) to furnish information about their transactions to the Ministry of Commerce. This statistical information was then transformed into a *Rapport sur les caisses d'épargne*, which sought to ensure the social character of these savings: these types of saving accounts were geared toward the working poor to encourage them to deposit small amounts of cash in a savings account with a specific return.<sup>54</sup> Distinguishing between men's and women's savings had only become possible in 1881, when a law granted women the right to dispose freely of their savings. Prior to this law, wives could open savings accounts, but needed their husband's authorization to withdraw funds. The mural then assembled available information into ten graphs or maps that dealt with the number of accounts held by women and men, the average amount of savings and their evolution over time, the distribution of savings by professional categories and by sex, and their geographic distribution (Figure 3).

While the existence of this series of charts and maps may only be due to the ready availability of statistics, their message seems to echo not only the monographs that accompanied the murals but also contemporary studies on the subject in the *Journal de la Société de statistique de Paris*.<sup>55</sup> To this extent, they adhered to the socially conservative vision of society promulgated by such social scientists as Le Play and Cheysson. But they also echoed the solidarist republican vision. Savings accounts were intended to encourage poor workers to invest providently and constituted, as a result, an individualistic response to the social question of working-class poverty. By encouraging workers to set aside savings for the future (for unemployment, family obligations, illnesses, or old age), the French state sought to moralize the working class and to encourage frugality in its social and economic behavior. Social Catholics, republican Solidarists, and many strands of the French feminist movement shared a political vision that regarded this kind of behavior, along with working-class membership in mutual aid societies, as a bulwark of solidarity between generations and families.<sup>56</sup>

### From Counting to Contesting

Marie Pégard's official report eschewed drawing explicit political conclusions from *La Statistique*. Instead, she concluded with remarks about the role the statistics would later play: "Independently of its interest today, this general statistic of woman in France may play a critical role in the future, as it indicates precisely the state of the question at the end of the nineteenth century."<sup>57</sup> While she did not spell out who would use, inter-

pret, and act on this “state of the question,” she was well aware that her statistics showed the presence of women in the labor market, potentially disrupting the vision of women’s role within the family.

A year after the Chicago World’s Fair, Pégard was invited to present a report before the Union centrale des arts décoratifs on “the influence of woman on the artistic movement in our country” at the Exposition des arts de la femme in Paris. The minutes of this presentation offer precious insight into Pégard’s retrospective judgment of what the Woman’s Building in Chicago had hoped to accomplish. She noted: “[The Woman’s Building] brought women together in a common solidarity. It brought to light the diversity of their aptitudes, gave them a clear sense of their own personal value; through the observation of what has been achieved, they will draw forth the courage to demand more resolutely their due portion in human society.”<sup>58</sup> Pégard linked knowledge about women’s status—rendered through statistics—to personal and collective consciousness. In the years that followed, she founded the women’s section of the Union centrale des arts décoratifs (1895–96), became the general secretary of the Société française d’émigration des femmes (1897–98), and organized the French presence in the Exposition franco-russe in St. Petersburg (1899).<sup>59</sup> In the 1890s, her contemporaries associated her with the “exhibition moment” and her efforts on behalf of poor, working, and professional women. In the dossier that accompanied her nomination as chevalier of the Legion of Honor in 1899, a memo includes information about awards she won in the “social economy” category for exhibitions held in Bordeaux (1895), Rouen (1896), and Brussels (1897).<sup>60</sup> The list ends with the item “1896 Lauréat de l’Institut (Académie des Sciences).” Thanks to this prize, her statistical tables are available to us today.

In 1896, Pégard submitted an album entitled *Statistique générale de la femme* to the Academy of Sciences for the Montyon Prize in statistics.<sup>61</sup> Pégard’s document was one of six submissions, two of which were eliminated for not respecting the spirit of the prize. The four other submissions were all recognized in some form: the top two were given modest financial sums, while Mme Pégard was given a “mention très honorable.” The judges’ decision and the accompanying justification speak eloquently to gendered assumptions about women’s ability to participate as producers of knowledge in the masculine arena of the social sciences.<sup>62</sup> Founded during the Restoration, the Montyon Prize in statistics attracted learned men in the medical profession and in the emerging field of statistics. Victor Turquan, Pégard’s collaborator, had won the prize a few years earlier. Although Pégard was one of the first women to present a study for the prize, the judges did not draw attention to her sex; rather, they questioned her expertise in the area:

Mme Pégard presents an Atlas of 105 maps, most of which are quite interesting. Fig. 5 shows that the average age at death for women is 29 in the Finistère, 51 in the Lot-et-Garonne. Unfortunately, the author is content to show this result and does not seek to explain the causes. I could say the same about the age at which women marry in the different regions in France ... I can only regret that Mme Pégard has not sought to analyze the conclusions that emerge from the tables. This work remains to be done; she has limited herself to bringing the documents.

Finally, the maps do not appear to be the personal work of the author; indeed she thanks M. Turquan for his precious collaboration, and most of the maps appear to have been borrowed from the work of other statisticians.<sup>63</sup>

Although Pégard was judged *not quite* a statistician in her failure to analyze and in her failure to construct her own figures, the jury nonetheless recognized that her statistics showed potential.

The jury was not alone in sensing a potential that was both intellectual and political. Two years after the World's Fair, Pégard's statistics were on show in a social economy exhibit in Bordeaux. In articles addressed both to fellow economists and statisticians, the liberal economist Ernest Fournier de Flaix noted how the exhibition gave visibility to the French feminist movement, showing how women "progressively intervened in the different branches of work and sections of the social economy." And yet, he noted:

It is not possible to hold back the numerous reflections provoked by the documents that chronicle this movement ... If women's work develops to such an extent that it threatens the home, what will become of the family? And indeed what will become of men's work with this new form of competition?<sup>64</sup>

Speaking before the Société de statistique de Paris, he drew even more dire conclusions about men's salaries: "What will become of man's salary when he has been ejected by women from most of the jobs he holds?"<sup>65</sup> Behind the careful inventory of social facts lay potentially explosive social, economic, and political issues. The *Statistique* revealed that women's presentation of social facts had a potential to challenge the status quo they documented.

Pégard's trajectory in the years following the Chicago World's Fair illustrates links between the emerging social sciences and the feminist movement that have recently begun to be explored. Hard facts, colored graphs, and elaborate diagrams shed light on a series of gendered differences that would provide grist for a wide variety of women and men whose analyses called into question the role that women should play in Belle Époque France. By the late 1890s, however, Pégard increasingly shifted her interest from the assembling and documenting of facts to be presented before the public eye, to activities that sought to improve the

lives of women. She joined a constellation of actors from a variety of origins whose political engagements in social Catholicism, Protestant reformism, freemasonry, *and* the social sciences would contribute to the distinctive character of the French feminist movement.<sup>66</sup>

Pégard's brand of militancy bore the imprint of her initial engagement in the production of statistics for the World's Fair. She was once again put in charge of the section relating to moral and intellectual education for the Universal Exposition of 1900 in Paris, and edited the four-volume proceedings of the International Congress of Feminine Works and Institutions that took place at the same time.<sup>67</sup> This monumental enterprise detailed the status of women in a vast range of activities—the labor market, education, philanthropy and social economy, the arts, etc.—and went a step further than the statistics as the participants expressed their desires for change in *vœux*. In 1901, she worked as secretary-general for the *Œuvre libératrice*, an institution founded by the feminist leader Mme Avril de Saint-Croix to help destitute women and to combat prostitution. Her relationship with Avril de Saint-Croix continued within the *Conseil national des femmes françaises* (CNFF) that the latter founded the same year. In 1906, Pégard succeeded the founder of the *Section de travail* of the CNFF, holding this position until early 1913 when Gabrielle Duchêne took it over, seconded by Cécile Brunschvicg and Maria Vérone.<sup>68</sup> While she served in this position, Pégard championed women as participants in the labor market, be they professionals or the working poor. Pégard's name is associated, for example, with the campaign that granted women access to the bar, authorized them to plead in court, and granted them positions on labor relations boards (*conseils de prud'homme*). In less than a decade, under the influence of the feminist movement, she had moved from showing women's place in society to putting pressure on the government to legislate measures in their favor. At her death, her obituary noted, she was working on a law to ensure women a minimum wage.<sup>69</sup>

## Conclusion

If Pégard has attracted little attention from scholars to date, it is no doubt in part because she left no personal record of her battles for women's rights and because her activities ranged so widely—from organizing expositions to creating an emigration society to pressing for legal reforms.<sup>70</sup> No feminist journal is directly associated with her name—although she was frequently mentioned in *Action féminine*, the journal of the CNFF founded in 1906.<sup>71</sup> Perhaps, more fundamentally, her approach to feminism initially bore the marks of its origins in the *Statistique*. Reluctant to speak in

public, she nevertheless pursued feminist goals by bringing the contemporary status of French women to the public's attention. Her statistics, coupled with the albums on women's charitable activities, elided the issue of what role the state might play in improving women's status. Instead, women were profiled struggling individually or collectively to lessen the inequalities generated in a capitalist economy; the gendered nature of these inequalities, notably in terms of salaries, was not what was put on display. Moreover, by refusing to comment on her statistics, Pégard left them open to interpretation by others. Within the context of the Woman's Building in Chicago, their meaning was in part determined by what surrounded them. But in other contexts, as we have seen, the graphs could generate antifeminist sentiment and a fear that women's employment represented a danger to the French family.

For all of her reticence to mobilize her statistical work for a politics of reform, Pégard brought to her efforts a feminist sensibility that became more evident not long after the Chicago World's Fair. Her efforts in the CNFF focused on organizing women and promoting cross-class solidarity. In 1907, she coordinated within the CNFF a series of ten conferences for women trade unionists on "Women and the spirit of association."<sup>72</sup> Her work anticipated that of the first women members of the women's division of the Musée social, which only emerged in 1916.<sup>73</sup> Producing statistics and promoting women's professional work may have appeared less radical than championing suffrage. Still, her use of statistics brought her into the feminist arena and provided a precedent for the application of social science that later feminists would follow.

In the end, Pégard's embrace of statistical methods to describe women's status in society represented an important moment when Frenchwomen seized the opportunity to use a male statistical grammar to place the "woman question" before the public eye. Form, content, and context all converged with the *Statistique générale de la femme* to present a powerful political argument about women's economic and social role in France. To this extent its very existence was subversive—and recognized as such both by those who presented the data and those with the training to understand its significance. As Pégard's own story reveals, statistical expertise could serve as an invaluable resource for a feminist devoted to the cause of advancing the status of women in her country.

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## Notes

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1. Scholarship on women's participation in universal exhibitions is relatively piecemeal except for the 1893 World's Fair. Recent exceptions are two edited volumes: TJ Boisseau and Abigail M. Markwyn, eds., *Gendering the Fair: Histories of Women and Gender at World's Fairs* (Chicago: University of Illinois Press, 2010); Myriam Boussahba-Bravard and Rebecca Rogers, eds, *Women in International and Universal Exhibitions, 1876–1937* (New York: Routledge, 2018).
2. Corn uses the expression "informational backbone" in describing the two record rooms. Wanda Corn, *Women Building History: Public Art at the 1893 Columbian Exposition*, with contributions by Charlene Garfinkle and Annelise K. Madsen (Berkeley and Los Angeles: University of California Press, 2011), 78.
3. See Jeanne M. Weimann, *The Fair Women. The Story of the Woman's Building at the World's Columbian Exposition Chicago: 1893* (Chicago: Academy Chicago, 1981), 376–391, photograph, 377.
4. Thérèse Bentzon, *Notes de voyage: Les américaines chez elles* (Paris: Calmann Lévy, 1896), 24–25. For more context on this initiative, see Karen Offen, *Debating the Woman Question in the French Third Republic, 1870–1920* (Cambridge: Cambridge University Press, 2018), 207–209.
5. Ministère du Commerce, de l'industrie, des postes et des télégraphes, *Exposition internationale de Chicago en 1893: Rapports publiés sous la direction de M. Camille Krantz... Comité des dames. L'exposition féminine française à Chicago* (Paris: Imprimerie Nationale, 1895), 9. [Hereafter referred to as Rapport Pégard]. All translations from the French are ours.
6. Ibid.

7. Carol E. Harrison, *The Bourgeois Citizen in Nineteenth-Century France: Gender, Sociability, and the Uses of Sociability* (Oxford: Oxford University Press, 1999), especially chap. 3.
8. Zheng Kang, "Lieu de savoir social: La Société de statistique de Paris au XIX<sup>e</sup> siècle (1860–1910)" (thèse d'histoire, EHESS, 1989); Zheng Kang, "La société de statistique de Paris au XIX<sup>e</sup> siècle: un lieu de savoir social," *Les Cahiers du Centre de recherches historiques* 9 (1992), <http://ccrh.revues.org/2808>.
9. Alain Desrosières, "L'ingénieur d'État ou le père de famille: Émile Cheysson et la statistique," in *L'Argument statistique*, vol. 1: *Pour une sociologie historique de la quantification* (Paris: Les Presses des Mines, 2008), 257–289.
10. Le Play achieved his fame through the worker monographs he initiated and his defense of a theoretical posture based on direct observation and the comparison of results obtained in this fashion. At his death in 1882, Le Play had succeeded in creating a widely-shared social scientific language. See Antoine Savoye, "Les continuateurs de Le Play au tournant du siècle," *Revue française de sociologie* XXII, 3 (1981), 341–342.
11. Laure Godineau, "L'économie sociale à l'exposition universelle de 1889," *Le Mouvement social* 149 (1989): 71–87.
12. Éric Brian, "Transactions statistiques au XIX<sup>e</sup> siècle: Mouvements internationaux de capitaux symboliques," *Actes de la recherche en sciences sociales* 145, 5 (2002): 34–46.
13. For the role of statistics in educational ranking systems, see Damiano Matasci, "Aux origines des rankings: Le système scolaire français face à la comparaison internationale (1870–1900)," *Histoire et mesure* 29, 1 (2014): 91–118.
14. Alain Desrosières, *L'Argument statistique*, vol. 2: *Gouverner par les nombres* (Paris: Les Presses des Mines, 2008).
15. Émile Cheysson, "Les méthodes de statistique graphique à l'exposition universelle de 1878," *Journal de la société de statistique de Paris* [hereafter *JSSP*] 19 (1878), 324.
16. *Ibid.*
17. The French pioneered the graphic representation of maps and coined the term cartogram in the 1860s. See H. Gray Funkhouser, "Historical Development of the Graphical Representation of Statistical Data," *Osiris* 3 (1937): 269–404. For Cheysson's contribution to these techniques, see "Les cartogrammes à teintes graduées," *JSSP* 28 (1887): 128–134.
18. See Elsa Martayan, "Émile Cheysson et les expositions universelles de Paris," *Milieux, Bulletin de recherche sur la civilisation industrielle, Le Creusot, Ecomusée de la Communauté urbaine* 28 (1987): 16–24.
19. Ministère des travaux publics, *Exposition internationale de 1889: Album de Statistique graphique* (Paris: Imprimerie nationale, 1889). See Hervé Le Bras, "La Statistique générale de la France," in *Les Lieux de la mémoire*, vol. II, *La Nation*, ed. Pierre Nora (Paris: Gallimard), 1986), 317–353; Jean Rouchet, "D'une crise à l'autre: 1907 la naissance du suivi de la conjoncture à la SGF," paper presented 20 May 2016, <https://www.insee.fr/fr/information/2387407>.
20. Émile Monod, *L'Exposition universelle de 1889: Grand ouvrage illustré, historique, encyclopédique, descriptif* (Paris: E. Dentu, 1890), 350–351.
21. Préfecture de la Seine, Secrétariat général-service de la statistique municipale, M. le dr Jacques Bertillon chef des Travaux de la Statistique, *Atlas de statistique graphique de la ville de Paris, 1889*, vol. 1 (Paris: Georges Masson, 1891), avant propos.

22. Gilles Palsky, "La cartographie statistique de la population au XIX<sup>e</sup> siècle," *Espace, populations, sociétés* 3 (1991): 451–458.
23. See Karen Offen, *The Woman Question in France, 1400–1870* (Cambridge: Cambridge University Press, 2017), 191–194.
24. Joan W. Scott, "A Statistical Representation of Work: *La statistique de l'industrie à Paris, 1847–1848*," in *Gender and the Politics of History* (New York: Columbia University Press, 1988), 113–138; Joshua Cole, *The Power of Large Numbers: Population, Politics, and Gender in Nineteenth-Century France* (Ithaca and London: Cornell University Press, 2000), especially chap. 4 "Working Women and Market Individualism," 117–148.
25. See the special issue on Julie-Victoire Daubié in the *Bulletin* of the Centre Pierre Léon d'histoire économique et sociale 2–3 (1992); Agnès Thiercé, "La pauvreté laborieuse au XIX<sup>ème</sup> siècle vue par Julie-Victoire Daubié," *Travail, genre et sociétés* 1, 1 (1999): 119–128. For a comparison of Jules Simon's analysis of the woman worker and Daubié's, see Joan W. Scott, "'L'Ouvrière! mot impie, sordide...'" Women Workers in the Discourse of French Political Economy, 1840–1860," in *Gender and the Politics of History*, 139–163.
26. Leroy-Beaulieu's father-in-law was Michel Chevalier, whom he succeeded as chair of the position in political economy at the Collège de France in 1878. In 1873 he took over the direction of the journal *L'Économiste*.
27. See Judith G. Coffin, *The Politics of Women's Work: The Paris Garment Trades, 1750–1915* (Princeton: Princeton University Press, 1996), especially 66–73 that argues for the importance of women's work in debates about political economy after 1870.
28. Séance du 18 décembre 1864, Société d'économie sociale, session de 1864–1865, *Bulletin de la société internationale des études pratiques d'économie sociale* 1 (1865): 29–44. Débat de la séance du 5 juin 1884 "Où la femme, d'un point de vue économique, est-elle la mieux placée?" *Annales de la société d'économie politique* 14 (1896): 333–356.
29. For the organization of the French presence at the Fair, see Weimann, *The Fair Women*, 106–109; 136–137.
30. "Address to the Fortnightly club of Chicago, April 10, 1891," in *Addresses and Reports of Mrs. Potter Palmer: President of the Board of Lady Managers, World's Columbian Commission* (Chicago: Rand and McNally, 1894), 44.
31. Weimann, *The Fair Women*, 386–387.
32. Chicago Historical Society, World's Columbian Exposition (hereafter WCE), Mrs Potter Palmer, incoming letters, box 6 (Dec. 1893–1894), folder 16, text entitled "Foreign cooperation."
33. Despite Marie Pégard's role within the feminist movement in the early twentieth century, knowledge about her life is piecemeal up until the 1890s. Her appointment in 1892 to this committee appears to be her first step into public life. For a study of the women behind the Franco-American feminist alliance forged in the context of universal exhibitions, see Karen Offen, "Rendezvous at the Expo: Building a Franco-American Women's Network, 1889–1893–1900," in *Women in International and Universal Exhibitions, 1876–1937*, ed. Myriam Boussahba-Bravard and Rebecca Rogers (New York: Routledge, 2018), 215–233.
34. "Report of the committee for the French section of the Woman's Building: World's Columbian exposition," Chicago Historical Society, WCE, Palmer, box 10, vol. 28, file 1, Typewritten report.

35. Rapport Pégard, 36.
36. Ibid.
37. Letter from the General commissioner to the Minister of Commerce and Industry, 23 December 1893, Archives nationales, F<sup>12</sup> 4458.
38. "Vie de la société, Procès-verbal de la séance du 15 novembre 1893," *Journal de la Société de statistique de Paris* 12 (December 1893), 443.
39. See for instance: Victor Turquan, "Résultats statistiques de cinq années de divorces," *JSSP* 31 (1890): 106–111.
40. Victor Turquan, *Guide pratique des jeunes gens des deux sexes dans le choix d'une carrière: Réunion de conseils, conditions et programmes pour l'admission dans chaque profession* (Paris: Félix Ciret, 1893). This would appear to be one of the very first career guides to include girls and women and to state this inclusiveness in its title.
41. Pégard, "France," in *Art and Handicraft in the Woman's Building of the World's Columbian Exposition*, ed. Maud Howe Elliott (Paris and Chicago: Boussod, Valadon & Co., 1893), 169–184.
42. Ibid., 169.
43. Rapport Pégard, 9.
44. Ibid., 8.
45. Quoted in Weimann, *The Fair Women*, 391.
46. The two separate albums have now disappeared: *Conditions du travail des femmes: Enseignement professionnel* and *Œuvres d'assistance pour et par la femme*.
47. Rapport Pégard, 42.
48. Ibid., 42–43.
49. It's not clear what justified the decision to eliminate certain tables from the surviving album. The statistical tables produced for the two separate albums on women's role in the administration and women's role in assistance are not included. Nor are the final two tables indicating the women who had received the medal of the Legion of Honor or military medals. The album is listed as "Statistique générale de la femme en France" par Mme M. Pégard, secrétaire générale du Comité des femmes françaises à l'Exposition de Chicago (1895) at the Library of the Institut de France (Paris), mss 3467 [hereafter Album Pégard].
50. Album Pégard, see tables 55 and 61.
51. Ibid., see figure 63, tables 69–73, and figure 89.
52. Paul Leroy-Beaulieu, *Le Travail des femmes au XIX<sup>e</sup> siècle* (Paris: Charpentier et Cie éditeur, 1873). It bears mentioning that the album makes no attempt to address the more political issue of women's nighttime work or children's work. The French passed a law in 1892 forbidding women to do the more lucrative nighttime work.
53. Women students represent only 1.3% of the total number of students in 1891 (283 women out of 21,991).
54. Carole Christen-Lécuyer, "La mesure de l'efficacité sociale des caisses d'épargnes françaises au XIX<sup>e</sup> siècle," *Histoire & mesure* XX, 3/4 (2005): 139-176.
55. The JSSP published a number of statistical studies on savings, insurance, and retirement, but nothing specifically on women's savings. See Benoît Oger, *Histoire de la caisse nationale d'épargne: Une institution au service du public et de l'État, 1881–1914* (Paris: L'Harmattan, 2006) and Carole Christen-Lécuyer, *Histoire sociale et culturelle des caisses d'épargne en France 1818–1881* (Paris: Éditions Economica, 2004).

56. There is an extensive literature on this subject. For a useful article that introduces the debates see Judith F. Stone, "Republican Ideology, Gender and Class: France, 1860s–1914," in *Gender and Class in Modern Europe*, ed. Laura L. Frader and Sonya O. Rose (Cornell: Cornell University Press, 1996), 238–259.
57. Rapport Pégard, 42.
58. Mémoire de Mme Pégard sur la 3<sup>e</sup> question "De l'influence de la femme sur le mouvement artistique de notre pays," Union centrale des arts décoratifs, *Le Congrès des arts décoratifs: Comptes-rendus sténographiques*, Paris, Palais de l'Industrie, 1894, 221.
59. For information about women in the decorative arts and Pégard's role in opening doors, see Debora Silverman, *Art Nouveau in Fin-de-Siècle France: Politics, Psychology, and Style* (Berkeley: University of California Press, 1989), 194–197. For information about women's access to the skilled and liberal profession, see Linda L. Clark, *The Rise of Professional Women in France: Gender and Public Administration since 1830* (Cambridge: Cambridge University Press, 2000).
60. Dossier Pégard, Archives nationales, LH 2080/13. Reports from these later expositions suggest that she may well have exhibited the 1893 murals with her collaborator Turquan.
61. In 1782 Jean-Baptiste Montyon created three prizes: one for virtue, a second for the literary work most "useful for morals," and the third in the sciences awarded by the Academy of Sciences. Beginning in 1817 a category for statistics was created. Eric Brian, "Le prix Montyon de la statistique à l'Académie Royale des Sciences pendant la Restauration," *Revue de Synthèse* 2 (1991): 207–236.
62. Hélène Charron, *Les Formes de l'illégitimité intellectuelle: Les femmes dans les sciences sociales françaises, 1890–1940* (Paris: CNRS Éditions, 2013).
63. Rapport de M. Brouardel sur l'ouvrage présenté par Mme Pégard, *Comptes rendus hebdomadaires des séances de l'Académie des Sciences*, col. 123 (July–December 1896), 1127.
64. Ernest Fournier de la Flaix, "L'économie sociale à l'exposition de Bordeaux," *L'économiste français*, 28 November 1895, 707.
65. "Vie de la société, Procès verbal de la séance du 20 novembre 1895," *JSSP* 12 (December 1895), 405.
66. See Yolande Cohen, "Féministes et républicains: Parcours de femmes à l'origine du CNFF (1880–1901)," *French Politics, Culture and Society* 34, 3 (2016).
67. Madame Pégard, *2<sup>e</sup> Congrès international des œuvres et institutions féminines: Compte rendu des travaux*, 4 vol. (Paris: Imprimerie typographique Charles Blot, 1902).
68. See Karen Offen, *Debating the Woman Question in the French Third Republic, 1870–1920* (Cambridge: Cambridge University Press, 2018), 316. Pégard married a Catholic, but was close to many of the prominent Protestant women feminists of her time, most notably Isabelle Bogelot and Mme Jules Siegfried. Florence Rochefort, "Feminism and Protestantism in 19<sup>th</sup>-Century France: First Encounters, 1830–1900," in *Globalizing Feminisms, 1789–1945: Rewriting Histories*, ed. Karen Offen (London/New York: Routledge, 2010), 67–77.
69. Julie Siegfried, "Mme Léon Pégard," *L'Action féminine* 43 (May 1916): 22–24. One cannot help being struck that feminist leader Julie Siegfried saw fit to name Pégard with her husband's first name in her obituary. For feminist attitudes to naming, see Florence Rochefort, "Politiques féministes du nom

- (France XIX<sup>e</sup>–XXI<sup>e</sup> siècle),” *Clio. Femmes, Genre Histoire* 45 (spring 2017): 107–128.
70. She does not figure, for example, in Christine Bard, avec la collaboration de Sylvie Chaperon, *Dictionnaire des féministes: France XVIII<sup>e</sup>-XXI<sup>e</sup> siècle* (Paris: Presses universitaires de France, 2017). Karen Offen, however, mentions her frequently in *Debating the Woman Question*.
  71. More recently the interest in Empire has spawned a number of studies that mention Pégard’s role within the *Société française d’émigration des femmes* (founded in 1897). See Marie-Paule Ha, *French Women and the Empire: The Case of Indochina* (Oxford: Oxford University Press, 2014); Margaret Cook Andersen, *Regeneration through Empire: French Pronatalists and Colonial Settlement in the Third Republic* (Omaha: University of Nebraska Press, 2015), 89–103; Krista Molly O’Donnell, “French and German Women’s Colonial Settlement Movements, 1896–1904,” *Historical Reflections* 40, 1 (2014): 92–110.
  72. Document of 6 April 1907 describing a series of lectures between 11 April and 15 May, Centre des Archives du féminisme (Angers), 1 AF 254.
  73. Françoise Blum and Janet Horne “Féminisme et musée social, 1916–1939: la section d’études féminines du Musée Social,” *La Vie sociale* 8–9 (1988): 313–402.