

Economic analysis, ideology and the public sphere: insights from Australia's equal remuneration hearings

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The article explores contrasting economic analyses of gender and wages in Australia's social and community sector as important and relevant examples of specific types of ideology in economics. The analyses were submitted as evidence in an equal remuneration case brought before Australia's key industrial tribunal, Fair Work Australia. We argue that mathematical methods and specialist techniques in economic analysis can deflect attention from important assumptions and ideological commitments underlying economic analyses of gendered patterns of work and pay. However, debate in the public sphere represents an opportunity to explain and discuss these methods and assumptions to better understand their social and policy implications. We conclude that there are advantages to be gained from discussing and scrutinising the assumptions of economic analysis with people who are knowledgeable about labour markets but non-specialist in terms of applying economic theory, such as union officials, union members, employer groups and representatives and industrial tribunals. These advantages include improved policy decisions and recognition of the need for pluralism in economic research.

Key words: Feminist economics, Institutional economics, Labour markets, Ideology, Public sphere

JEL classifications: B54, J31, B41

1. Introduction

In March 2010 five trade unions¹ representing social and community sector (SACS) workers submitted an application to Australia's key industrial relations tribunal, Fair Work Australia, seeking an equal remuneration order to increase wages by 30%. The unions' argument was that SACS employees are predominantly women and SACS work is under-valued with regards to the nature of the work and the skills and responsibilities involved in performing the work. The unions also argued that specific historical and institutional factors have contributed to the ongoing under-valuation of work by SACS employees (ASU, 2010).

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¹ The Australian Municipal, Administrative, Clerical and Services Union (ASU) lodged the application supported by the Health Services Union, the Australian Workers' Union of Employees, Queensland, the Liquor, Hospitality and Miscellaneous Union and the Australian Education Union.

The tribunal's proceedings and decision considered two contrasting expert witness statements from academic economists on the issue of gender-based under-valuation. One statement featured a mainstream economic analysis of the gender wage gap. The other featured an institutional analysis of gendered patterns of work and pay. Perhaps not surprisingly the statements reached differing conclusions. The statement of the mainstream economist asserted that there was insufficient evidence to support a claim of gender-based under-valuation of the SACS employees' work, whilst the submission of the institutional economists argued that the available evidence indicated that gender-based under-valuation was occurring and that it was significant.

This article focusses on the role played by the tribunal's hearings in revealing the ideological underpinnings of the economic analyses of gender-based undervaluation, including the various types of ideology identified by Tony Lawson (2012). The hearings created a unique opportunity for detailed public discussion and deliberation on the issue of gender-based under-valuation of specific forms of paid work. By providing a public forum, the hearings played an important role in the critical analysis of economic research that is undertaken to provide insights into labour markets and inform policy.

We commence by describing the equal remuneration wage case and the relevant institutions and parties involved. This is followed by a discussion of the specific economic evidence brought before the tribunal and the debate that ensued between the different groups of economists. We then summarise some of the recent contributions, particularly by Lawson, to discussions about the types of ideology used by mainstream economics. We draw on arguments by Hannah Arendt (1958) to emphasise the importance of the public sphere for scrutinising economic analyses relevant to social policy. Our conclusions are threefold. First, the equal remuneration case demonstrates and emphasises a need for pluralism in economic research. Second, the case illustrates the importance of conceptual discussions that help participants identify the types of rhetoric and ideology applied to policy debates. Third, a public sphere which forces economists to acknowledge their worldview or ideology can have a positive effect on intellectual awareness, honesty and pluralism in the discipline.

2. Background and context of Australia's 2010 equal remuneration case

The economic analyses and debate that form the basis of our discussion occurred within the context of an application for increased wages heard by the key industrial relations tribunal in Australia. Australia is a federation in which specific legislative powers are assigned to the Commonwealth government through the constitution with residual powers remaining with various state governments. The constitutional powers assigned to the Commonwealth government give it considerable scope to establish tribunals with the capacity to make decisions on a range of industrial relations matters, including the minimum wages that might be paid for specific types of work. The key institution undertaking this role is known as Fair Work Australia (FWA), established under the Fair Work Act of 2009.² Section 2.7 of the act gives FWA the authority to make orders relevant to equal remuneration: 'FWA may make any order it considers appropriate to ensure that, for employees to whom the order will apply, there will be equal remuneration for work of equal or comparable value'. In contrast with earlier Australian legislation relating to equal pay, this provision does not require that

² In 2012 this tribunal was renamed the Fair Work Commission.

discrimination be demonstrated as the cause of ‘unequal’ remuneration; nor is there a requirement for direct comparisons between specific occupations to determine that a particular type of work might be under-valued³ (Baird and Williamson, 2010; Austen *et al.*, 2013).

In March 2010 five trade unions⁴ submitted an application to FWA seeking an equal remuneration order to increase wages by 30% for SACS workers. Their argument (ASU, 2010) was, first, that SACS employees are predominantly women and SACS work is under-valued with regards to the nature of the work and the skills and responsibilities involved in performing the work. The unions also argued that specific historical and institutional factors have contributed to the ongoing under-valuation of work by SACS employees.

To support their argument, the unions established a profile that, *prima facie*, could indicate a gender basis for the under-valuation of SACS work. Reflecting FWA guidelines, this profile included elements such as female domination of the workforce, female characterisation of the work, weak unions or few union members, a large component of casual workers, poor access to training or career paths, small workplaces and inadequate recognition of qualifications (Austen *et al.*, 2013).⁵ At the time of the case, the SACS workforce comprised an estimated 153,000 employees of whom around 80% were female, compared with an Australian average of 47%. Part-time employment represented over half of all employment in the sector compared with 29% nationally. The work performed by SACS workers varied but included roles in alcohol and drug rehabilitation centres, relationship counselling and family support agencies and women’s refuges. Sixty-four percent of SACS workers held a post-school qualification with many holding tertiary qualifications in an area such as social work or psychology (FWA, 2011). In 2010 the average weekly ordinary time earnings (AWOTE) for full-time SACS workers ranged from about AUD30,000 to AUD36,000, compared with national AWOTE for full-time employees of close to AUD65,000 (Australian Bureau of Statistics, 2010).

3. Contrasting economic analyses of under-valuation

In the course of FWA’s proceedings, and in its decision handed down on 16 May 2011, two contrasting expert witness statements from academic economists on the issue of gender-based under-valuation were among the evidence considered. Each statement addressed the relatively low rate of pay received by SACS workers—and the question of whether these rates reflected a gender-based under-valuation of their work. One was contributed by a prominent Australian labour economist, Deborah Cobb-Clark, and featured a mainstream economic analysis of the gender wage gap. The other was contributed by the Women in Social and Economic Research (WiSER)

³ The case was therefore conducted in a different manner from ‘comparable worth’ cases where the skills and work undertaken by women in predominantly feminised occupations such as secretarial work and nursing are compared with occupations dominated by male employment such as car washing and mechanics (see, for example, cases described in England, 1999).

⁴ ASU lodged the application supported by the Health Services Union, the Australian Workers’ Union of Employees, Queensland, the Liquor, Hospitality and Miscellaneous Union and the Australian Education Union.

⁵ A similar case had recently concluded before one of Australia’s state tribunals, the Queensland Industrial Relations Commission (*QSU v. QCCI and others*, 2009) and wage increases of 18% and 37% had been achieved for community sector workers in that jurisdiction (Baird and Williamson, 2010).

group of economists and featured an institutional analysis of gendered patterns of work and pay. Perhaps not surprisingly the statements reached differing conclusions. The Cobb-Clark statement asserted that there was insufficient evidence to support a claim of gender-based under-valuation of the SACS employees' work, whilst the WiSER submission argued that the available evidence indicated that gender-based under-valuation was occurring, and that it was significant.

The Cobb-Clark statement was composed of two academic papers on the gender pay gap that used mainstream methods of decomposition analysis and had been co-authored by the professor ([Barón and Cobb-Clark, 2010](#); [Cobb-Clark and Tan, 2011](#)). The first paper reported the findings of an empirical study of the different average wages received by Australian men and women. It estimated the correlations between the wage outcomes of individuals and a range of worker and job characteristics that were hypothesised to be generally relevant either to workers' productiveness, the value of the commodities produced or the attributes of the jobs that were performed. It used measures of men's and women's average years of experience in employment (such as tenure with their current employer); demographic characteristics, such as age, language background and children; education; and a range of job characteristics (such as industry of employment, contract type, hours of work, union membership, firm size, and for some purposes of the analysis, occupation). The object of the analysis was to ascertain whether measured differences in men's and women's average earnings could be accounted for by measured differences in their job characteristics, labour market experience, education and demographic characteristics.

A similar empirical strategy was used in the second Cobb-Clark paper ([Cobb-Clark and Tan, 2011](#)). This study addressed the question of whether men's and women's non-cognitive skills (defined as their measured personality traits) influence the occupations in which they are employed and, if so, whether differences in these traits contribute to the disparity in men's and women's wages. Measures of a range of non-cognitive skills were added to an empirical analysis of the gender pay gap that was similar to the Barón and Cobb-Clark study, on the assumption that these skills also affect worker productiveness and thus wage outcomes.

Two findings from these studies were particularly important to the FWA case and became the subject of further debate, submissions, witness statements and cross-examination. The first, reported in the Barón and Cobb-Clark paper, was that the gender wage gap at the lower end of the pay distribution is largely 'explained' (or accounted for) by the different characteristics (union membership, contract type, part-time work, industry, firm size) of the jobs held by the men and women involved. The implication drawn from this finding was that differences in job characteristics, which the authors linked to different levels of productiveness, were the primary cause of women's relatively low pay in the part of the labour market relevant to SACS workers, rather than gender-based under-valuation ([Barón and Cobb-Clark, 2010](#), p 238). Barón and Cobb-Clark did find that part of the measured difference in the average earnings of Australian men and women was 'unexplained' by measured differences in their job and individual characteristics, possibly constituting evidence of gender bias in labour market processes. However, they also found that the 'unexplained' portion of the gender wage gap increased when 'controls' for occupation were included in their statistical analysis ([Barón and Cobb-Clark, 2010](#), p 237). Thus, they reached a second conclusion relevant to the equal remuneration case, that 'in the Australian context . . . in most cases the occupational distribution favours women with respect to

wages' (Barón and Cobb-Clark, 2010, p 241). This implied that working in a female-dominated sector favoured, rather than harmed, the wage outcomes of SACS workers.

The WiSER statement (Austen, 2010) featured a different and contrasting approach to the analysis of the gender pay gap. It comprised, first, a review of a large and diverse literature in feminist economics on the failure of apparently gender-neutral market institutions to adequately value the commodities and services produced by women (citing evidence, for example, from Himmelweit, 1995; Ironmonger, 1996); the effects of social structures and relationships on women and men's work and career goals (citing evidence, for example, from Pujol, 1997; Strassman, 1997); and the influence of social norms associated with providing care on the distribution of unpaid household work and subsequently on the gendered nature and configuration of work (citing evidence from, for example, Folbre, 1994).

Specific features of the SACS sector were also addressed in the WiSER statement. It described the sector as one where care services are commonly purchased by government agencies but used by individuals and their families. As a result, the link between the social or community value of the work performed, the price received by care providers, and the wages they offer care workers was identified as being, at best, weak. In this analysis, the likelihood that the wages received by SACS workers would reflect the value of what they produced was rated as low and the importance of institutions on wage determination was rated as high (further details are available in Austen *et al.*, 2013).

4. Debate in the public sphere

Not surprisingly, the Cobb-Clark statement caused particular concern to the unions involved in the equal remuneration case. The statement's assertion that the work of women in low-wage sectors, including the SACS, was not under-valued directly contradicted the unions' submission. Furthermore, the technical nature of the analysis contained in the Cobb-Clark articles constrained their ability to critique the submission. One outcome of these concerns was that the WiSER economists were requested by the ASU to produce a second report that specifically considered the analysis and conclusions produced by Cobb-Clark and her colleagues. Subsequently, both Cobb-Clark and Austen (lead author of the WiSER statements) were called as witnesses before FWA and asked detailed questions about their analyses. During the ensuing debate between the economists, the clearest descriptions of the mainstream and institutional approaches to the issue of under-valuation emerged.

Addressing the non-academic audience directly for the first time in the hearings, Cobb-Clark elaborated on the theoretical approach of mainstream labour economics to the issue of under-valuation:

As an economist the notion of 'undervaluation' has a particular meaning which requires comparison of 'like with like'. Specifically, undervaluation (or discrimination) occurs when equally productive workers are treated differently solely on the basis of their non-productive characteristics such as gender, religion, ethnicity, race, sexual orientation, etc. (see Blau *et al.*, 2010). Workers' productivity depends not only on their own characteristics, but also on the nature of the work they do, and the value of the goods and services they provide to others. For this reason, it is difficult to make judgments about undervaluation when we cannot compare workers with the same skills (e.g., educational attainment, field of study, experience, tenure, etc.) doing the same work (e.g., hours, firm size, detailed occupation). (Cobb-Clark, 2010, pp 4–5)

This comment added contextual detail that was useful in explaining the statistical techniques and measures used in the academic papers that made up the initial Cobb-Clark submission. It showed that in the absence of discrimination, gender differences in pay are presumed by mainstream labour economists to reflect differences in the productivity characteristics of men and women and/or differences in the market value of the commodities they produce. This helped explain the empirical strategy of focussing on the identification of particular regularities pertaining to individual wage outcomes.

However, Cobb-Clark's clear articulation of the conceptual framework of mainstream approach to under-valuation revealed a number of other important features. As will be discussed shortly, it showed that in the mainstream analysis, under-valuation is equivalent to discrimination. It also revealed that the standard of proof for under-valuation is very high, requiring a comparison of like with like. Proving under-valuation is seen by mainstream economists to be very difficult when 'you are comparing workers in different jobs'.

A number of specific features of the mainstream approach to the analysis of under-valuation were also highlighted in the FWA hearings. One of these is the conceptualisation of 'occupation' and 'occupational segregation'. In the mainstream analysis of under-valuation, 'occupation' referred to a large number of jobs categorised into groups according to standard classifications used by statistical agencies. This is required to enable regression analysis of wage differences across and within 'occupations'. Cobb-Clark and Tan (2010) included 18 such groups and Barón and Cobb-Clark used 64 occupational groupings for the entire Australian workforce. As a result each study examined occupational groups that contained a wide range of specific jobs with widely differing characteristics and wage outcomes.

The WiSER submission to the FWA drew attention to the consequences of this conceptualisation for the analysis of under-valuation. It outlined first how gender-based occupational segregation, with possible effects on under-valuation, commonly occurs within large occupational groups (for example, within the large occupational group of social, engineering and building professionals, women and men hold different types of jobs and these jobs have different wage rates attached to them). Statistical analyses of the gender pay gap that rely on broad measures of occupation do not uncover the contribution to the gender pay gap of gender-based occupational segregation within these groups. This is a key omission given that, according to [Cobb-Clark and Tan \(2011\)](#), virtually all (96.5%) of the total gender gap in Australian wages is associated with gender pay gaps within broad occupational categories.

The WiSER submission also demonstrated how standard statistical analyses of the effects of gender-based occupational segregation on the gender wage gap can produce a distorted picture. Standard analyses compare two average wage outcomes for women: (i) the existing outcome and (ii) the outcome that would prevail in the hypothetical situation where the occupational profiles of women and men are identical (with all other factors remaining constant at current levels). The results of the comparison depend on the pattern of women's wages across male- and female-dominated occupations at a particular point in time. In Australia at least, women's wages in male-dominated occupations, such as labouring, are often very poor. Therefore, it is not surprising that the results of such analyses show that women's wages, on average, would be lower in the hypothetical situation, compared with the existing situation ([Preston and Whitehouse, 2004](#)). The analyses also neglect the way occupational segregation can create hierarchies between and within occupational groups, and influence the gender composition

of different occupational groups.⁶ As such, there is little evidence that the current occupational distribution ‘favours women with respect to wages’, as [Barón and Cobb-Clark \(2010, p 241\)](#) claimed.

The debate before FWA also revealed differences in the meaning attached to the term ‘productivity’ by the two groups of economists. The WiSER group linked the concept of ‘worker productivity’ primarily to worker attributes such as education and experience. In contrast, Cobb-Clark linked productivity to the market value of the good or service being produced by the worker and thus included measures of the worker’s job characteristics, such as the size of the employing organisation, the industry of employment, casual or part-time employment and union membership ([Cobb-Clark, 2010, p 5](#)).

This is an important distinction because it affects the conclusions reached on whether an observed gender pay gap reflects an under-valuation of women’s work. The WiSER group equated the relatively low wages that women receive for their qualifications and experience with under-valuation. However, because Cobb-Clark linked ‘job characteristics’ such as organisation size and union membership to worker productivity, she inferred that the lower wages of workers in smaller organisations, and the lower wages of non-unionised workers (with both groups featuring an over-representation of women) were not relevant to the question of under-valuation. Rather, the inference was that lower wage rates in these circumstances could be justified by the lower productivity of the workers involved.

Arguably, however, the most important difference between the two groups of economists that was revealed in the tribunal hearings concerned the central concept of under-valuation. As demonstrated in the previous quote, Cobb-Clark conflated under-valuation and discrimination (‘undervaluation (or discrimination) occurs when . . .’), revealing the individualism of the mainstream theoretical position. In mainstream labour economics, the individual person and the individual job are the units of analysis. Each person’s wage is viewed as reflecting only his or her individual characteristics and circumstances and the characteristics of his or her particular job. Unfair gender pay gaps are theorised to derive from situations where individual employers discriminate on the basis of gender, for example, where they attach a psychic cost to hiring a woman ([Becker, 1957](#)). However, this model does not suggest reasons an unfair wage differential might only develop within particular female-dominated occupations. Thus, the notion that particular work undertaken within specific occupations might be under-valued cannot be accommodated in this model.

Institutional analysis can accommodate the notion of under-valuation because it conceptualises wages as linked with specific social structures. As reflected in the initial WiSER statement, institutional analysis posits that the wage outcomes of individuals reflect social norms about the value and status of the positions they occupy in a given social structure. Prevailing wage relativities are theorised to influence these norms, and thus the wage rates attached to particular positions will be path dependent. Importantly, the social environment also includes norms about the legitimate and desirable occupational positions of men and women. Social structures affect the range of actions available to different position holders and their bargaining power. As such, an unfair pattern in wage rates across male- and female- dominated occupations may emerge for a number of key reasons: an inadequate valuation of the occupational

⁶ We are grateful to an anonymous referee for this observation.

positions held by women (either due to current biases against women or historical legacy), social structures and relationships that distort the allocation of occupational positions and formal and informal institutions that produce an uneven distribution of bargaining power (Austen *et al.*, 2013).

5. Ideology

The FWA hearings served yet another important function in relation to the economic debate on under-valuation: it helped reveal the ideological underpinnings of mainstream economics. We do not mean to imply by this statement that only mainstream economics has ideological underpinnings. However, in the hearings the methods and assumptions of mainstream economics were those under scrutiny, largely due to the controversial claims about under-valuation made in the initial Cobb-Clark submission.

The content and method of social research are inextricably linked with researchers' assumptions and evaluations and the prevailing ideologies at particular places and points in history. Researchers are active in deciding which questions are asked and how these questions are investigated. As Stretton argues, 'Facts are facts, but theories order them and explanations select them. The political and professional values of the scientist affect these selections' (Stretton, 1969, p v). Economics is no exception, the inextricable links between assumptions of value, prevailing ideologies and economic methods have been explored at length by various historians of thought who have demonstrated how the development of theory reflects economists' judgements about the issues requiring explanation and the factors or causes to be illuminated through theory (Meek, 1964; Dobb, 1973, 1975). The importance of implicit assumptions and evaluations and their implications for methodology are perhaps at their most acute when exploring the operation of labour markets. It has been argued that these markets are distinctive from other types of markets because labour is different from other commodities. The buying and selling of labour is closely linked with notions of fairness, acceptable behaviour, social status and self-esteem. As Solow argues, once you acknowledge these factors then the textbook treatment of labour markets is no longer applicable (Solow, 1990, p 10).

Lawson's recent contribution to discussions about ideology and economics continues a long tradition of analysis about the role and extent of value judgements in economic analysis. One of Lawson's (2012) contributions to the discussion is to identify three types of ideology that are relevant to contemporary economics. Each of these types could be discerned in the submissions and statements to the equal remuneration case. Lawson describes, first, Ideology₁:

Ideology₁: a relatively unchallenged set of (possibly distorted or misleading) background ideas that every society or community possesses which forms the basis of, or significantly informs, general opinion or 'common sense', a basis that remains somewhat invisible to most of its members, appearing as 'neutral', resting on preconceptions that are largely unexamined. A consequence is that viewpoints significantly out of line with these background beliefs are intuitively seen as radical, nonsensical or extreme no matter what may be the actual content of their vision. (Lawson, 2012, p 3)

The nature of Ideology₁ is more likely to apply to mainstream analyses by virtue of its current dominant position. During her advocacy and defence of the mainstream analysis of under-valuation at the FWA hearings, Cobb-Clark revealed examples of

this type of ideology. She claimed several times the institutional approach was ‘not sensible’; and that the *only* way to understand wage outcomes is in terms of the individual characteristics of workers, their jobs and what they produce. She expressed surprise that an economist could view the issues in any other way, and she sought to call into question the expertise of any economist who did not subscribe to the same worldview.

Based upon a review of the Associate Professor’s [Austen’s] curriculum vitae I note that she is amongst other things an Associate Professor in the Department of Economics and Finance at Curtin University of Technology. *As an economist* the notion of ‘undervaluation’ has a particular meaning which requires comparison of ‘like with like’. . . . *From an economist’s perspective*, the information which is contained within Article 1 [by Cobb-Clark and Tan] is not detailed enough to draw conclusions in relation to whether undervaluation is present or whether the differences in wages are due to market conditions. . . . *From an economist’s perspective* wages should be equal to the value of what you are producing [at the margin]. (Cobb-Clark, 2010, pp 4–5, emphasis added)

Thus, during the hearings it became evident that the authority of her initial analysis was viewed by Cobb-Clark to stem not only from its technical precision but also from its appeal to what she perceived to be commonly shared beliefs about the reasonableness of the assumptions underlying the analysis. These assumptions, not specified in the initial submission, were discussed in terms that implied that there were not only self-evident but uniformly agreed on. This is a type of ‘ideology’ consistent with Dobb’s (1975) discussion of ideology being relevant to ‘the extent to which the shaping of any theoretical model, or set of abstract principles . . . is heavily influenced by . . . a larger conceptual framework of ideas about the nature of existing society and its history’ (Dobb, 1975, p 357). More simply, it reflects Robinson’s argument that ‘people may not always *know* what their assumptions are’ (cited in Harcourt, 1995, p 73, emphasis in original).

Lawson (2012, p 3) identifies another version of ideology commonly associated with mainstream economics. Labelled ‘Ideology₂’, this is a form of ideology that is supportive of the status quo in social affairs:

a set of ideas designed, or anyway intentionally employed, in order to justify, preserve or reinforce some existing state of affairs, where this state of affairs is preferred, perhaps because it facilitates or legitimates various advantages for some dominant or privileged group, and where these ideas mostly work in the manner described by way of intentionally masking or misrepresenting the nature of reality.

Whilst this ideology was less apparent in the mainstream economist’s statements to the FWA, it is interesting to note how, during the hearings, Cobb-Clark’s arguments demonstrated support for (rather than a challenge to) the status quo in relation to wage outcomes. For example, as noted earlier, Cobb-Clark acknowledged that the mainstream economic approach makes it difficult to ‘prove’ under-valuation: ‘it is difficult to make judgments about undervaluation when we cannot compare workers with the same skills (e.g., educational attainment, field of study, experience, tenure, etc.) doing the same work (e.g., hours, firm size, detailed occupation)’. The approach also ‘takes as given’ the existing state of affairs with regards to the gender-based distribution of educational attainment, hours of work, experience and so on, rather than challenging this in any way. As such, the analysis—when translated to wages policy—will act preserve or reinforce the existing (unequal) gender-based distribution of wages.

Lawson (2012, p 10) identifies a further ideology that is relevant to mainstream economics: the ‘unquestioning, uncritical, taken on trust as normal, blinkered orientation to employing mathematical techniques’ He goes on to assert that this type of ideology is the primary reason for the failure of mainstream economics. To support his claim, Lawson argues that most mainstream economists do not actually concern themselves with the workings of the economic system—and thus cannot be charged with consciously and consistently pursuing Ideology₂ (Lawson, 2012, p 7). Lawson’s argument is consistent with claims that many economists apparently believe their theorising has little to do with the real world (Colander, 2005). Harcourt, on the other hand, has argued that economists may be less than thorough in distinguishing the purposes of their analysis: ‘If doctrinal debate is the issue . . . it is right and proper to operate at a high level of abstraction’ (Harcourt, 1996, p. 93). In such cases the key purpose of a debate may not, in the first instance, be to illuminate what is happening in the real world, and this would be an incorrect benchmark for evaluating the debate. The situation is different if the aim of analysis is to make inferences about what is happening in the real world. In these cases empirical analysis needs to set out the limitations of the approach and the usefulness of the analysis ‘turns on whether or not it is believed that the underlying simple model captures the essence of the processes at work’ (Harcourt, 1996, p 97). Another view is that mathematical modelling is associated with an intuitive belief by many economists that it does indeed describe the operation of an ‘undirected, unplanned, free market economy’ (Kaldor, 1985, p 14). Whatever the cause for the lack of serious interrogation of the implications of mathematical modelling, Lawson finds that there is little evidence of a consistent viewpoint across mainstream economics as to the project’s purpose and direction.

Thus, Lawson argues that to explain the failure of much of mainstream economics we must look elsewhere—specifically to the one consistent and unchallenged feature of mainstream economics, which he identifies as the ‘insistence that methods of mathematical deductive modelling always be employed’ (Lawson, 2012, p 10). This argument is consistent with Colander’s finding that 82% of surveyed graduate economic students believe that excellence in mathematics is important for success in economics compared with 33% who believed that a thorough knowledge of the economy is important (Colander, 2005, p 181). Perhaps even more telling in this regard is that 51% of surveyed graduate students believed that a thorough knowledge of the economy is unimportant. Within this context, Lawson (2012, p 17) explains the consequences of ‘Ideology_M’ (our term) for economic analysis. These include both errors in analysis and, more important, an irrelevance of much economic analysis to policy debates. Lawson also alleges that mainstream modelling deflects criticism from the nature of the status quo and causes issues ‘of power, discrimination, domination, oppression, and conflict generally [to be] . . . effectively masked over, or at best trivialised’.

As academic economists, we are well aware of the mathematical emphasis in economics and of how many of our colleagues find the prospect of using other approaches to be basically scary. For many, job insecurity combines with an Ideology_M in their departments and programs to strongly discourage or eliminate the option of doing anything different. The mainstream economic evidence presented to the equal remuneration case was originally published in academic journals in economics and the content of the papers clearly reflected the influence of Ideology_M. Furthermore, mathematical techniques of the type used by Barón and Cobb-Clark (2010) and

Cobb-Clark and Tan (2011) are associated with rhetoric that is viewed as authoritative (McCloskey, 1994).

As such, there is a high likelihood that the published articles submitted by Cobb-Clark as evidence to the equal remuneration case reflected the current state of play in labour economics, and there is little indication in the papers themselves that they are consciously associated with any particular type of ideological position. However, it is easy to see the relevance of Lawson's assertions on the links between Ideology_M and the failure of mainstream economics. The key methods employed in the papers were based on mathematical modelling that implied a social ontology of atomism. As noted, it focused on identifying event regularities between, for example, individual worker characteristics and wages. Explanation of the legal, social or historical basis of these relationships thus could not be a key focus of the analysis. It could be argued that this approach has limited capacity to capture the distinctiveness of the labour market (Solow, 1990). As a result of these ideological underpinnings, the mainstream analysis was unable to come to any conclusions on the key issue under consideration in the case, under-valuation. Its recommendation, essentially, was the preservation of the status quo with respect to wage relativities.

6. The public sphere and economic discourse

It is important to note that the ideological characteristics of the economic analyses of under-valuation were not immediately apparent to the applicant unions to the equal remuneration case and possibly other stakeholders. It was only during the process of producing supplementary witness statements and the subsequent FWA hearings that these issues were considered in detail.

Thus, the final part of this article reflects on the role of public fora in helping reveal the ideological and other aspects of economic analyses—and, thus, improving the quality of economic analysis and policy. It draws heavily on the work of political philosopher Arendt who, in one of her seminal works, *The Human Condition*, emphasised the key role played by the public sphere—that is, the gathering of citizens for the purpose of discussing and deliberating about matters of public concern. The discussion identifies the relevance of several aspects of Arendt's characterisation of the human condition to understanding the importance of the FWA hearings on the issue of equal remuneration.

Arendt identifies plurality as the central aspect of the human condition, writing that 'we are all the same, that is, human, in such a way that nobody is ever the same as anyone else who ever lived, lives or will live' (Arendt, 1958, p 8). Relatedly, she also emphasises the importance of action—those activities that disclose the unique identity of the person (D'Entreves, 2009, p 14). The public sphere is critical to the human condition because, for Arendt, this is the only space where action can only occur. The sphere is necessarily defined by plurality but also by speech because only through a shared language can individuals articulate the meaning of their actions and coordinate with others. 'Men, in so far as they live and move and act in this world, can experience meaningfulness only because they can talk with and make sense to each other and to themselves' (Arendt, 1958, p 4). The key role of speech to action is emphasised throughout Arendt's work. As D'Entreves describes, for Arendt, individuals reveal their unique identity to others through their attempts to weave a narrative about their actions and pronouncements:

Storytelling, or the weaving of a narrative out of the actions and pronouncements of individuals . . . enables the retrospective articulation of their significance and import, both for the actors themselves and for the spectators. Being absorbed by their immediate aims and concerns, not aware of the full implications of their actions, actors are often not in a position to assess the true significance of their doings, or to be fully aware of their own motives and intentions. Only when action has run a certain course, and its relationship to other actions has unfolded, can its significance be made fully manifest and be embodied in a narrative . . . The fact that this narrative is temporally deferred, that it is at some distance from the events it describes, is one of the reasons why it can provide further insight into the motives and aims of the actors. (2009, p 20)

Arendt's emphasis of the importance of speech is also reflected in her strong criticisms of the mathematizing of science. For example, she argued that 'the sciences today have been forced to adopt a "language" of mathematical symbols, which, though it was originally meant only as an abbreviation for spoken statements, now contains statements that can no longer be translated back into speech' (Arendt, 1958, p 4).

In a similar argument to Lawson's, Arendt also asserted that many of the problems of modern science could be attributed to the over-use of math, rather than deficiencies in the character of the scientists or their lack of knowledge or concern about the world.

The reason why it may be wise to distrust the political judgement of scientists *qua* scientists is not primarily their lack of 'character' . . . or their naiveté . . . but precisely the fact that they move in a world where speech has lost its power. And whatever men do or know or experience can make sense only to the extent that it can be spoken about. (Arendt, 1958, p 4)

Referring directly to mainstream economics, Arendt (1958, p 43) made additional harsh comments on the social ontology implied by mathematical treatments,⁷ asserting that the 'the social phenomena which make such treatment possible [are] great numbers, accounting for conformism, behaviourism, and automatism in human affairs'. In a similar vein to Lawson's contemporary warnings about the tendency for mathematical treatments to support the preservation of the status quo, Arendt (1958, p 43) noted that 'Statistical uniformity is by no means a harmless scientific ideal; it is the no longer secret political ideal of a society which, entirely submerged in the routine of everyday living, is at peace with the scientific outlook inherent in its very existence'. However, for Arendt, the greatest danger involved in the emphasising of 'statistical uniformity' (event regularities) in mathematical treatments of economics is its tendency to neglect the central aspect of the human condition, plurality by reducing 'man as a whole, in all his activities, to the level of a conditioned and behaving animal' (Arendt, 1958, p 45).

Several aspects of Arendt's characterisation of the human condition help explain the importance of the FWA hearings on the issue of under-valuation. The hearings qualify as a public sphere, representing a coming together of citizens for a discussion and deliberation of the SACS workers' wages. As Arendt predicted, the plural actors and the associated requirement to use a shared language—speech rather than mathematics—helped disclose the identities of the participants. Also as she predicted, the narratives woven by the economists at the hearings provided much greater insight into their motives and aims than did their initial 'work' (which made up the initial submissions and academic papers). Specifically, the hearings helped reveal the ideological assumptions of the participants. For example, the mainstream economist's resort to Ideology₁ to claim legitimacy for her approach—and to diminish opposing viewpoints—can be attributed to the shifting of the debate into the public sphere. It is also unlikely that the

⁷ Arendt defines this treatment as statistics.

mainstream economists' conflation of under-valuation and discrimination would have been revealed if one of the authors had not been called on in the hearings to enunciate her underlying conceptual model in non-mathematical terms. Without the discussion in the public sphere, the mainstream economist's particular interpretation of the influence of unions on wage outcomes would probably not have been revealed.

Arendt's analysis of the use of mathematics also resonates with the experiences of those involved in the equal remuneration case. As noted earlier, several non-economist participants in the case struggled to translate the language used in the academic papers back into non-specialist speech, and this affected their ability to respond to the claims that were made in the papers.

Perhaps most important, Arendt's (and Lawson's) warnings about the potential harm caused by a reliance on mathematical methods echo in the 'scientific' finding that there is no evidence of under-valuation in the Australian labour market and, if anything, low-wage Australian women are advantaged by their current occupational positions. This finding is perhaps illustrative of Chomsky's warning over 50 years ago that there are dangers in relying on technical experts to address important social issues (Chomsky, 1967, p 9).

However, achieving an enhanced understanding of 'scientific' or 'expert' analysis via discussions in a public sphere is far from guaranteed. Frazer (2009, p 221) describes action as 'a human possibility, not the default setting', because a large number of people, due to unequal cultural endowments or speech capacities, can be excluded from the public sphere. As Lopez (2012, p 14) further explains, 'social inequalities can contaminate and pervert deliberation [in this sphere]'. Thus, the FWA hearings can be judged to be particularly valuable because they included plural viewpoints on economics, as well as a range of community groups with an interest in the issue of under-valuation. This plurality helped ensure that the quality of the different contributions of economic analysis could be assessed. It also helped reveal the extent to which some areas of the economics profession recognise only particular types of research methods as valid.

7. Conclusion

Much of the research agenda among heterodox economists is associated with a pluralist approach to research. By definition this can take many forms but can include a focus on the social institutions that inform the roles and actions available to individuals within an economy. This possibility allows for diverse economic analyses to place social and historical studies at the centre of attempts to understand specific economic outcomes.

Australia's recent equal remuneration case highlighted the plural viewpoints in economics on the issue of under-valuation—and their implications for the wages of particular groups of women. The mainstream and institutional analyses presented to the FWA contained contrasting viewpoints on most of the key issues associated with the case: the relevance of gender-based occupational segregation, the role of unions and large firms and ultimately the likelihood of under-valuation.

In addition, the hearings revealed the Ideology₁ and Ideology₂ of the mainstream economic analysis in ways that could not be achieved by reading the academic articles that were submitted as evidence. This finding emphasises the potential importance of the public sphere in revealing the meaning and significance of different types of

economic analysis. The initial submission of mainstream economic analysis featured highly technical analyses of the gender wage gap, reflecting the influence of Ideology_M in the profession. Only during the subsequent hearings were the ideas and assumptions underpinning this analysis revealed. What became transparent were the meanings attached to key concepts such as occupation, productivity and under-valuation, and this transparency gave other participants in the case an ability to understand and critically evaluate the mainstream economists' evidence. The evidence and hearings also provide insights into the importance of plural methods of data and analysis in contributing to public debate on matters of economic and social policy.

We conclude that the public sphere of the FWA hearings was critical in achieving a relatively high level of awareness and transparency about competing economic analyses of gender and wages. Although this article draws on a single case, it suggests that a public sphere made up of plural actors and featuring the use of speech rather than mathematics can help ensure that mainstream economic arguments about distribution are aired and challenged. Plural actors—or more specifically, actors from diverse backgrounds—increase the pressure on economists to place their work in context: to explain and justify their selection of particular elements of the social and economic environment for analysis and to explain and justify their particular assumptions about the characteristics of these elements. This pressure can be particularly useful in revealing the assumptions and ideologies of mainstream economics. It can also assist participants who are trained in diverse disciplines to understand each other's work and collaborate more effectively together to address important economic and social phenomena, such as the gender pay gap. Speech has a vital role in maximising the opportunities for equal participation in the public sphere and in the decisions that flow from its debates. It is particularly useful in airing the meaning and significance of concepts underlying mathematical analyses of economic and social issues and enabling them to be challenged. Those who wish to contribute to the quality and relevance of economic analysis can fruitfully pursue the opportunities afforded by the public sphere.

Bibliography

- Arendt, H. 1958. *The Human Condition*, Chicago, University of Chicago Press
- Austen, S. 2010. Statement of Siobhan Austen: In the matter of application by the Australian Municipal, Administrative, Clerical and Services Union and others for an equal remuneration order in the social and community services industry, available at <http://www.fwc.gov.au/index.cfm?pagename=remuneration&page=introduction> (accessed 14 October 2013)
- Austen, S., Jefferson, T. and Preston, A. 2013. Contrasting economic analyses of gender, work and pay: lessons from an equal remuneration case, *Journal of Industrial Relations*, vol. 55, no. 1, 60–79
- Australian Municipal Administrative Clerical and Services Union (ASU). 2010. Form F1—Application in Fair Work Australia, available at <http://www.fwc.gov.au/index.cfm?pagename=remuneration&page=introduction> (accessed 14 October 2013)
- Australian Bureau of Statistics (ABS). 2010. *Average Weekly Earnings, Australia, Catalogue 6302 August 2010*, Canberra, Australian Bureau of Statistics
- Baird, M. and Williamson, S. 2010. Women, work and industrial relations in 2009, *Journal of Industrial Relations*, vol. 52, 355–69
- Barón, J. D. and Cobb-Clark, D. 2010. Occupational segregation and the gender wage gap in private- and public-sector employment: a distributional analysis, *Economic Record*, vol. 86, 227–46
- Becker, G. S. 1957. *The Economics of Discrimination*, Chicago, University of Chicago Press

- Blau, F., Ferber, M. A. and Winkler, A. E. 2010. *The Economics of Women, Men, and Work*, Upper Saddle River, NJ, Prentice Hall
- Chomsky, N. 1967. A special supplement: the responsibility of intellectuals, *New York Review of Books*, available at <http://www.nybooks.com/articles/archives/1967/feb/23/a-special-supplement-the-responsibility-of-intelle/?pagination=false> (14 October 2013)
- Cobb-Clark, D. 2010. Supplementary witness statement in the matter of application by the Australian Municipal, Administrative, Clerical and Services Union and others for an equal remuneration in the Social and Community Services Industry, available at <http://www.fwc.gov.au/index.cfm?pagename=remuneration&page=introduction> (accessed 14 October 2013)
- Cobb-Clark, D. and Tan, M. 2011. Noncognitive skills, occupational attainment, and relative wages, *Labour Economics*, vol. 18, 1–13
- Colander, D. 2005. The making of an economist redux, *Journal of Economic Perspectives*, vol. 19, 175–98
- D’Entreves, M. P. 2009. Hannah Arendt, in Zalta, E., Nodelman, U., Allen, C. and Perry, J. (eds), *Stanford Encyclopedia of Philosophy*, Stanford, CA, Metaphysics Research Lab, available at <http://plato.stanford.edu/archives/spr2009/entries/arendt> (accessed 28 August 2012)
- Dobb, M. 1973. *Theories of Value and Distribution since Adam Smith: Ideology and Economic Theory*, Cambridge, Cambridge University Press
- Dobb, M. 1975. Comment, *Economic Record*, vol. 51, 357–9
- England, P. 1999. The case for comparable worth, *The Quarterly Review of Economics and Finance*, vol. 39, 743–755
- Fair Work Australia. 2011. Decision: Equal Remuneration Case, Australian Municipal, Administrative, Clerical and Services Union and others (C2010/3131), available at <http://www.fwc.gov.au/index.cfm?pagename=remuneration&page=introduction> (accessed 14 October 2013)
- Frazer, E. 2009. Hannah Arendt: the risks of the public realm, *Critical Review of International Social and Political Philosophy*, vol. 2, 203–23
- Folbre, N. 1994. *Who Pays for the Kids? Gender and the Structures of Constraint*, London, Routledge
- Harcourt, G. C. 1995. On mathematics and economics, in *Capitalism, Socialism and Post-Keynesianism*, Cheltenham, Edward Elgar
- Harcourt, G. C. 1996. How I do economics, in Medema, S. G. and Samuels, W. J. (eds), *How Economists Do Economics*, Cheltenham, Edward Elgar
- Himmelweit, S. 1995. The discovery of unpaid work: the social consequences of the expansion of ‘work’, *Feminist Economics*, vol. 1, 1–19
- Ironmonger, D. 1996. Counting outputs, capital inputs and caring labor: estimating gross household product, *Feminist Economics*, vol. 2, 37–64
- Kaldor, N. 1985. *Economics without Equilibrium*, Armonk, NY, M. E. Sharpe
- Lawson, T. 2012. Mathematical modelling and ideology in the economics academy: competing explanations of the failings of the modern discipline, *Economic Thought*, available at <http://et.worldeconomicsassociation.org> (accessed 25 September 2012)
- Lopez, H. 2012. Claiming Publicity for Work, AHE-FAPE-IIPE 2012 Joint Conference, Paris, 5–7 July
- McCloskey, D. 1994. *Knowledge and Persuasion in Economics*, Cambridge, Cambridge University Press
- Meek, R. L. 1964. Value-judgments in economics, *British Journal for the Philosophy of Science*, vol. 15, 89–96
- Preston, A. and Whitehouse, G. 2004. Gender differences in occupation of employment within Australia, *Australian Journal of Labour Economics*, 309–27
- Pujol, M. 1997. Broadening economic data and methods, *Feminist Economics*, vol. 3, 119–20
- Solow, R. M. 1990. *The Labor Market as a Social Institution*, Cambridge MA, Blackwell
- Strassman, D. 1997. Expanding the methodological boundaries of economics, *Feminist Economics*, vol. 3, vii–ix
- Stretton, H. 1969. *The Political Sciences*, London, Routledge and Kegan Paul