open to women, which varied across the coalfields, and so convey the variable pattern of potential resources available to strikers. Female part-time earnings were perhaps a marginal addition to household income in normal circumstances, but in the crisis of the strike – with male income forfeited completely – they provided potentially a basic means of economic stability. Men who participated in the strike relate that spouses working full-time continued to do so and those with one part-time job took a second and sometimes even a third part-time job to expand the household's resources. Women working part-time may also have been better able to help the strike in other ways – politically, morally – than women working full-time. [26] The local authority areas in which coalfield settlements were located encompassed higher rates of economic activity than the Scotland-wide average. The volume and range of available paid work, including manufacturing plus public and private service sector employment, is emphasized as a factor in building endurance by female strike supporters, especially in the Lothians and Fife.[27] An exception was Ayrshire, where the narrower span of material sustenance was perhaps reflected in the crumbling of commitment from December 1984.

The CHD rankings, like the MWE rankings, encompass many non-mining households. The Bilston Glen rank, for instance, is derived from 17,700 households, roughly ten times the number of employees at the pit. They are valuable nevertheless, demonstrating that in coalfield settlements CHD was significantly higher than the overall Scottish value, and this provided miners with a major potential resource in 1984-5, reducing the cost of striking. Much housing inherited from the pre-1947 coalfields was unfit for habitation by the 1950s and 1960s. Loc-2.98695(e)-0.115971(.81314( )-11.6

by the typical, central artery, terraced ‘miners’ rows’ – and the movement of its people in the 1950s to the local authority housing of Ballingry, a few hundred metres north, illustrates this. In 1981 CHD in Ballingry was 94 per cent.[29]

MWE and CHD are elements in the composition here of relative pit-level potential strike endurance (PSE) rankings, shown in Table 2, along with a militancy index (MI), capturing the character of pit-level industrial relations going into the strike, presented in Table 3.

Table 2. Pit-level Potential Strike Endurance (PSE) Rankings in the Scottish Coalfields, 1984

Colliery	MWE Rank[a]	CHD Rank[a]	MI Rank[b]	Sum Rank Values	PSE Rank
Seafield	5	2	3	10	1
Polmaise	4	6	1	11	2
Monktonhall	2	7	2	11	2
Frances	5	2	5	12	4
Polkemmet	3	1	10	14	5
Bogside	5	8	4	17	6
Solsgirth	5	8	7	20	7
Barony	11	2	8	21	8
Killoch	11	2	8	21	8
Castlehill	5	8	10	23	10
Bilston Glen	1	11	12	24	11
Comrie	10	12	6	28	12

Sources:

Table 3. Pre-Strike Pit-level Industrial Relations and Militancy Index (MI),

Colliery	Pit-level 'Yes' vote, 1982 NUM Ballot[a]	Ballot Rank Value	Pit-level Dispute, 1983-4?	Pit-level Dispute Rank Value	Sum Rank Values	MI Rank
Bilston Glen	56.5	12	None	9	21	12
Monktonhall	74.2	2	7 week lock-out/strike	2	4	2
Polkemmet	69	9	Brief lock-out	8	17	10
Seafield	72.5	3	4 week lock-out and strike, continuing 12 March 1984	3	6	3
Frances	71.1	7	1 week lock-out, continuing 12 March 1984	5	12	5
Killoch	60.4	11	Brief lock-outs	6	16	8
Barony	58.5	10	Brief lock-outs	6	16	8
Solsgirth	68.3	6	None	9	15	7
Castlehill	71.4	8	None	9	17	10
Bogside	72.5	3	Lock-outs and closure threatened	4	7	4
Comrie	70	5	None	9	14	6
Polmaise	99.3	1	Lock-outs and Closure announced	1	2	1
Scottish average	68.4					

Source: *Scottish Miner*, December 1982, pp. 1-4. [a] Support for industrial action, including strike action, against job closures and NCB pay offer.

It is emphasized that each of these variables – MWE, CHD and MI – are rankings,

establishing the relative rather than absolute potential strike endurance of each pit.

a seven week stoppage from mid-September 1983, and Seafield, with a lock-out and then continuous strike from February 1984.[30]

The sub-variables of ballot vote and pre-strike dispute are ranked in Table 3, producing values in the third and fifth columns that are added in the sixth column to produce the overall MI rankings. Polmaise is ranked 1 for MI. In the 1982 ballot 99.3 per cent of the pit's union members voted for a strike against closures and the NCB's annual pay offer; a four week lock-out followed in July and August 1983, and after its closure was announced in January 1984 the workforce agitated for a national strike. Bilston Glen is 12 in the MI rankings, recording the lowest vote in Scotland for industrial action in 1982, although this still exceeded the average across the British coalfields of 39 per cent, and there was no significant pre-strike dispute at the pit in 1983-4.

In Table 2 the MWE, CHD and MI rankings are added to produce a sum in the fifth column, from which the PSE rankings are established. In CHD terms Polmaise was ranked 6, and in MWE terms ranked 4. So the sum of its rankings was 11, the second equal lowest of the twelve pits, alongside Monktonhall, ranked 2 in MI terms, 7 in CHD terms, and 2 in MWE terms. Seafield is ranked 1 in overall PSE terms, a

articulated by, among others, the Institute for Economic Affairs,[31] and reflected in the policy of the Conservative government elected in 1979. The 1980 Coal Industry Act ambitiously – given contracting industrial output and therefore demand for energy – sought a self-financing industry by 1984.[32] The Monopoly and Mergers Commission's 1983 report on the industry strengthened this narrative, recommending a ten per cent reduction in capacity, requiring the closure of the least 'economic' pits, to achieve annual savings of £300 million.[33] The consequent vulnerability of the industry in Scotland is detailed in Table 4. This ranks the pit-level economic performance (EP) of collieries using NCB data from the Monopoly and Mergers Commission's report. EP rankings are the sum of four ranked factors: output, output per manshift, costs per tonne of production, and losses per tonne of production.[34]

Table 4. Performance Measures from NCB Scottish Collieries, 1981-82, and Pit-level Economic Performance (EP) Rankings

Colliery	Output (000s tonnes)	Output Rank	OMS[c] (Tonnes)

Longannet complex; [b]Polmaise was classed as a Development Pit in 1981-2, not producing coal; [c]Output per Manshift.

Pit-level performance, notably the ‘costs’ and ‘losses’ associated with production,

Source: NAS, SEP 4/6027, SEP 4/6028 and SEP 4/6029, Scottish Office Daily Situation Reports, March 1984 to March 1985. [a]Scottish Coalfield total includes data from other NCB units, including workshops. [b] Approximate Figures.

These details are further examined below. Initially, however, it is worth emphasizing that Table 5 shows in broad terms the relatively solid nature of the strike across Scotland until the autumn of 1984. Only at Bilston Glen were substantial numbers working before this point, and this remained the main centre of strike-breaking in Scotland until early February 1985, when a majority were working also at Barony and Killoch. The pit-level ASE rankings are calculated by averaging the percentages of miners working in the first week of September, November and December 1984 and then January, February and March 1985. Bilston Glen is ranked 12. The proportion of employees working had escalated elsewhere first at Monktonhall, possibly owing to the apparent harassment of union officials there from October onwards. This encompassed a lengthy stretch of imprisonment before trial on strike-related public order charges of David Hamilton, NUM branch delegate, together with financial inducements offered by the NCB to all strikers to return in November, which also stimulated work resumption in Ayrshire. Yet Monktonhall is 8 in ASE rankings because strike-breaking was stemmed there in January and February 1985, possibly bolstered when Hamilton was cleared of all charges at Edinburgh Sheriff Court.[40] The

Table 6. PSE, ASE and EP Rankings in the Scottish Coalfields, 1982-85

Colliery	*PSE*	*ASE*	*EP*
Seafield	1	6	6
Frances	4	7	11
Bogside	6	3	1
Comrie	12	1	9
Castlehill	10	5	1
Solsgirth	7	3	1
Polmaise	2	1	-
Monktonhall	2	8	4
Bilston Glen	11	12	5
Polkemmet	5	9	7
Killoch	8	11	7
Barony	8	10	9

Pit-level differences in strike commitment have already been noted. The details are restated in Table 6, which summarises the relationships between the three sets of pit-level rankings. These indicate a strong predictive element to the PSE, when measured against the ASE. First, three pits are in both the PSE and ASE 'top' six: Seafield, Bogside and Polmaise. Second, other than Comrie, no pit moves more than six rankings from one set to the other, and nine pits move by only four rankings or less. Third, and perhaps most strikingly, Bilston Glen, Barony and Killoch occupy three of the 'bottom' five positions in each set.

There is in Table 6 also a fairly consistent positive correlation between the ASE and EP. Four pits appear in the 'top' six of ea

their prospects.[42] While there were no major pre-strike disputes at the pit, the position was in fact highly precarious. Consultative committee minutes point to substantial tensions in 1982 and 1983, with managers recurrently emphasizing the allegedly poor nature of production, and offering dire predictions about future prospects, with the likelihood of closure or at least the substantial loss of employment. Similar themes emerge in consultative committee minutes from Killoch and Barony, low in both ASE and EP rankings.[43] Relatively weak performance, in other words, or even, in the case of Bilston Glen, management and workforce perceptions of relatively weak performance, may have contributed to reduced strike endurance in 1984-5.

‘Good performance’ in Scotland was, of course, relative, as the NCB average output per manshift and operating costs and losses per tonne in Table 4 indicates, although the Aberystwyth and Glyn critiques should be remembered. All pits were operating at a loss, and all were closed by the NCB and its successor, British Coal, within five or six years of the end of the strike. Yet it is nevertheless important to note the particularly strong correlation –d al usor023(r)-2.98695(e)23.0555(m)-11(u)-0.115971(c)1.8131(c056571(s

Killoch and Polmaise closed in 1987, Monktonhall, Seafield and Frances in 1988, and Bilston Glen and Barony in 1989. Monktonhall re-opened briefly as a workers' cooperative in the mid-1990s, while Longannet continued to burn locally-mined coal until 2002, from a small pit immediately adjacent to the power station, and Castlebridge, a new but short-lived colliery where production commenced shortly after the strike, and where employment peaked at 1,200 in 1990.[45]

The cases of Comrie and Polmaise, joint 1 in AS0.115971(60 115971(t)-1071(0)-0.115971(0)11.4698(

n 0tl se ir9( )-0.0579853(2)-0.115979853(a)11.469385(m)-12.7596(e)-0.155695(t)-11.6423(l)13.c9a

A broad assumption – usually implicit – of much twentieth century labour historiography is that industrialization in Britain was accompanied by changes in labour organization and protest, with a transition in values from those of the moral economy to the political economy matched organizationally and functionally by a broadly linear trend to bureaucratization and negotiation with employers, chiefly over

halved it again in the subsequent thirteen or so ye

from the neighbouring village to Fallin of Cowie,[57] but there are suggestions too of powerful Protestantism and even Orangeism at the pit.[58] NUM officials, delegates and activists from elsewhere in the coalfield certainly regarded Polmaise men – and women – as different: unpredictable and uncompromising.[59] Yet they were instrumental in establishing support for the strike in Scotland in January and February 1984,[60] and enforcing it on 12 March, the first day of the stoppage, when they arrived by coach to picket out Bilston Glen, which NCB and Scottish Office officials thought would otherwise have continued working.[61] Polmaise folk were clearly moved by moral economic factors. They articulated a profound sense of injustice when 'their' pit, the community's prime economic resource, was threatened.[62] This was the NUM position in Scotland more broadly, with the decision by NCB officials and government ministers to abandon large reserves and established workings seen as economically irrational, morally repugnant, and even likened to criminal sabotage.[63]

Two further moral economy strands were evident in the Scottish coalfields: crowd involvement, encompassing women and sometimes children; and the characterization of jobs as collective assets. Albert Wheeler encountered the force of the crowd at Polmaise himself, in July 1983 when announcing a lock-out after miners blocked the NCB's attempted transfer of several men from Cardowan, which was being run down prior to closure. The Polmaise crowd said this jeopardized an accord where locals recently transferred to Longannet's pits could return 'home'. Wheeler was harried and abused, with women and children colourfully to the fore.[64]

Crowd action during the strike was often concentrated outside pits, abusing working miners, or near their homes. Here the ‘rough music’ of earlier industrial crowd protest can be loudly heard, with threatened and actual violence. An early example was the hounding of a surface worker from the Longannet complex who broke the strike in June, Jim Pearson. His home in Culross was intermittently encircled over several days by dozens of men and women, and the windscreen of his van, which he used to drive to work, was smashed.[65] Pearson was ridiculed by strikers who refused to accept that he was a ‘proper’ miner,[66] and, like other strike breakers, drew a particularly gendered form of crowd opprobrium. They were characterized especially by female supporters of the strike as inferior types of men. Their masculinity was flawed by the act of strike-breaking, usually linked to some other personality disorder, often alcoholism, or a gambling addiction, leading to

joint industrial bargaining with management. This coloured the attitude of the coalfield crowd to the related question of voluntary redundancy. Jobs could not be ‘sold’ by miners for redundancy payments. This explains how the closure of Cardowan in 1983 ignited a series of pit-level disputes, including the Polmaise lock-out, with Lanarkshire

campaigning, fund- and consciousness-raising – in Ayrshire was also apparently limited, particularly in and around the large urban centre of New Cumnock. The essential problem was male chauvinism. This was a feature elsewhere in the Scottish coalfields. Willie Clarke still laments the sexism of some Fife miners, notably around Comrie, where, perhaps not coincidentally, the MWE ranking was also low. But more broadly in the east there was some reconstruction of gender politics,[77] with the moral leadership of women clearly central to strike endurance.[78] Daily reports from the NUM's strike centre at Dysart, encompassing Frances and Seafield Collieries, outline especially from May 1984 onwards the growing involvement of women in the direction as well as the maintenance of the strike.[79] This trend was reportedly evident at Monktonhall too. These women's stake in the strike was as great – and perhaps even greater – than that of men. They knew what had been invested in pursuit of victory, and understood intimately what would be lost – stable, well paid employment – in defeat.[80] The close engagement of women with the strike in Fife and parts of Midlothian may not have been entirely related to female labour market participation. In Midlothian this was above the coalfield average but in Fife just marginally below. It may instead have owed something to the Communist tradition, especially in Fife, which shaped the NUM Scottish Area's ambition after the strike to open membership to women on the same terms as men. Various strike participants in this connection recall the words of Michael McGahey, Scottish Area President and National Vice President, and a Communist, to the effect that a wo

IV

This article has ventured that pit-level support for the 1984-5 Miners' Strike, at least in Scotland, was shaped by material resources and variables. The analysis developed a model for predicting relative pit-level potential strike endurance (PSE), based on three pre-strike, pit-level variables: married women in employment (MWE), council housing density (CHD), and a militancy index (MI). These captured material resources, which built strike capacity. Female earnings and the suspension of rent commitments for local authority tenants in Labour controlled areas lowered the costs of striking. Pre-strike industrial relations were also important. Tensions were sharper in some workplaces than others. This contributed to varied pit-level strike willingness, and therefore the potential for differentiated pit-level endurance. The analysis further ventured that pre-strike economic performance (EP) was also important. This apparently structured the dissolution of the strike at Barony and Killoch, where there were pronounced pre-strike performance worries. It also contributes to our understanding of the position at the Longannet complex, where relatively healthy pre-strike economic performance gave the workforce something to defend. The analysis measured the PSE rankings against actual strike end

These economic variables are more important than has hitherto been acknowledged and explored in the literature. But the connection between these variables and actual endurance was uneven. There were significant strike endurance disparities between Bilston Glen and Monktonhall, which drew upon similar pre-strike economic resources, although the pattern and temper of industrial relations was different. The intense solidarity of the Longannet pits is explicable perhaps in the pre-strike economic performance of the complex, but is inconsistent with its low MWE and CHD rankings. The strike histories of Comrie, low in EP and PSE rankings, and Polmaise, low in EP rankings, are also not readily understood in terms of economic factors alone.

Hence the importance of moral economy influences, scrutinized in the final part of the article. These drew on established customs and expectations surrounding the operation of the nationalized coal industry, including approaches to pit closures, which initiatives by NCB managers in the early 1980s very clearly transgressed. Revolving around the engaged role of the community, including women, these moral economy influences were not straightforward, compli21(r)-2.98695(056571(E)6.61315(P)]T1(l)13.4u)-0.11597

illustrates the contrasting presence in different localities of moral economy attitudes and behaviour. Younger men may, after all, have more readily accepted the rational economic case for closure of their pit, and more quickly sought other ways of making a living, had they not been morally emboldened by arguments about the urgency of defending community resources and obligations. Of further note, undoubtedly, in generating strike commitment, and evident particularly throughout Fife, was a greater local or community emphasis on a more equitable – or less inequitable – division of labour by gender, and stronger approbation for the positive and engaged moral as well as material role of women.

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Seafield and Frances: CHD value to encompass identified mining settlements in Kirkcaldy District Council plus those in Dunfermline District Council settlements to the east of the M90, with Cowdenbeath at the western fringe; MWE value to encompass average of Kirkcaldy and Dunfermline value.

Longannet complex (Bogside, Castlehill and Solsgirth): CHD value to comprise Clackmannan and Dunfermline District Council settlements to west of M90; MWE value from average of Dunfermline District and Clackmannan District.
Comrie: CHD and MWE values on basis of Dunfermline District Council material.

Polmaise: CHD comprising average Bannockburn and Carseland in Stirlingshire; MWE on basis of Stirlingshire District Council material.

Bilston Glen: CHD value to encompass Bilston, Bonnyrigg, Loanhead, Penicuik, Dalkeith, Gorebridge, Mayfield; MWE value to encompass Midlothian District Council material

Monktonhall: CHD value to encompass Dalkeith, Danderhall, Gorebridge, Mayfield and East Lothian District Council settlements; MWE value to encompass average of Midlothian and East Lothian values.

Polkemmet. CHD comprising Whitburn and Armadale; MWE on basis of West Lothian District Council material.

Ayrshire pits: CHD and MWE values to encompass the aggregate of Cumnock and Doon Valley District Councils' material.