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ABSTRACT

The State of Collective Bargaining and Worker Representation in Germany: The Erosion Continues

This paper investigates trends in collective bargaining and worker representation in Germany from 2000 to 2008. It seeks to update and widen earlier analyses pointing to a decline in collective bargaining, while providing more information on the dual system as a whole. Using data from the IAB Employment Panel and the German Employment Register, we report evidence of a systematic and continuing erosion of the dual system. Not unnaturally the decline is led by developments in western Germany. Arguably, the path of erosion will continue until rough and ready convergence is reached with eastern Germany. Expressed differently, if the process of decentralization underpinning these developments once was 'regulated' it no longer appears to be so.

JEL Classification: J50, J53

Keywords: erosion of the dual system, collective bargaining/works council coverage, eastern and western Germany, institutional transitions, permanent stayers, newly-founded firms, closing/failing firms

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While this process of institutional erosion may take a long time, in the end, the German model of industrial relations will more and more lose its exclusivity and distinctiveness (Hassel, 1999: 503).

I. Introduction

Shrinking collective bargaining coverage in Germany is not new. Nor for that matter is it long standing, so much so that observers tended to equate the case of Germany with institutional resilience and path dependence. Among the first to identify *quantitative* changes in the twin pillars of the German dual system of industrial relations was Hassel (1999), who noted the falling proportion of employees covered by *sectoral* agreements and a certain weakening in *works council* coverage. Hassel (2002) subsequently reaffirmed her erosion-plus-decentralization thesis. A protean debate on the possibly cyclical nature of the trends pointed to by Hassel (see, for example, Klikauer, 2002) proved short lived as other observers were soon to chart decline along both these and also a number of other gradients, such as firm resignations from employers' associations and sharply declining union density (see respectively, Kohaut and Schnabel, 2003a; Silvia and Schroeder, 2007; Addison, Schnabel, and Wagner, 2003).

But the overall evidence on the coverage of the institutions of German industrial relations is now both dated and piecemeal, and there is therefore a need to provide updated and more comprehensive information on the extent of collective bargaining and works council coverage. Has the decline in sectoral bargaining continued or has it subsided (perhaps as a result of contractual innovations such as opening clauses, pacts for employment and competitiveness, and weaker forms of membership in employer associations)?¹ Has decentralization taken the form of a rising coverage of firm agreements on the Anglo-Saxon pattern? And does the course of representation in works councils point to a growing codetermination deficit?

We seek answers to these broad questions using data from IAB Establishment Panel, 1999-2009. Specifically, we shall chart the share of firms and employees covered by *both* sectoral and firm-level collective bargaining and, crucially, the default of no collective bargaining. We also chart the establishment coverage of and worker representation in works councils. In each case, we address full cross sections of establishments as well as their key constituents. Specifically, in addition to the aggregate findings we are interested in the results for *permanent stayers* (i.e.

continuing establishments observed in every single year of the sample) *newly-founded establishments* (or births), and *closing/failing establishments* (deaths).

To anticipate our findings, and as our title suggests, we conclude that the erosion in sectoral collective bargaining first observed in the 1990s is ongoing. Moreover, the decline is across the board, being observed for each of the samples identified here. That said, there are marked regional differences. The erosion is more pronounced in western Germany, and possibly represents the working out of a process of convergence. We even detect some erosion in codetermination, on which development there was no real consensus in the previous literature. Ironically, the decline in works council frequency detected here follows in the wake of changes in the enabling legislation in 2001 designed to promote works council formation (see Bellmann and Ellguth, 2006). Finally, there is no real suggestion of any material increase in firm-level collective bargaining.

Not directly examined here are the *consequences* of the erosion in collective bargaining. (And we will take it as read that there is no real disagreement over the forces promoting institutional change: globalization, high unemployment, unification, and structural shifts in employment patterns.) Thus, investigation of the impact of changes in the industrial relations system on, say, wage determination and wage dispersion is left to a later date. To repeat, our goal is rather to set down the facts of the case, to provide an updated and thorough description of changes in the dual system and establish the status quo ante.

II. Some Opening Remarks on the Erosion-Decentralization Thesis

The German system of (relatively) centralized wage bargaining is widely recognized as having displayed considerable stability until the end of the 1980s, with the second tier of the dual system allowing German industrial relations to accommodate to a trend toward decentralization in that decade (Thelen, 1991). In short, sectoral agreements continued to dominate in Germany long after their demise in other regimes because of the substantial devolved labor powers of workplace codetermination.

The erosion of the German system of industrial relations since the early 1990s has been analyzed by Hassel (1999), who identifies a decline in the coverage of plant-level codetermination and sectoral collective bargaining, that is, across both pillars of the dual system. Of the two, she argues that the decline in works council coverage has

been the more profound since there are collective agreements for almost all economic sectors.² But on the collective bargaining front, Hassel identifies two major developments: a steady increase in the number of company agreements relative to central (i.e. sectoral) agreements, especially in west Germany where they are less common than in east Germany, and the corollary of a pronounced decrease in the membership rates of employers' confederations. Hassel argues that the decline in coverage by German industrial relations institutions as a whole has coincided with greater pressure towards decentralization in collective bargaining. She distinguishes between *regulated decentralization* (via opening clauses, hardship agreements, and company-specific agreements) where the parties have sought to pre-empt pressures to decentralize collective bargaining by allowing for some differentiation while avoiding delegating decision-making rights on wages to plant level and actual deviations from standard terms and conditions in some 'pacts' where management has opened up an independent or substitute collective bargaining agenda from below. But she is concerned to warn that regulated decentralization may be no less divisive and ultimately destabilizing for the system than processes of decentralization from below. In sum, Hassel contends that the German system is under challenge as a result of shrinking regulative capacity in conjunction with increasing decentralization pressures.

In updating her analysis, Hassel (2002) argues that the evidence continues to support her erosion thesis. Drawing on survey data, she notes that between 1995 and 1998 the plant coverage rate of sectoral agreements in west (east) Germany shrank from 53.4 percent (27.6 percent) 47.7 percent (25.8 percent). In terms of private sector employee coverage the corresponding values for west (east) Germany were 72.2 percent and 67.8 percent (56.2 percent and 50.5 percent). She also observes a further decline in the membership of employer associations (strictly speaking only the case of *Gesammetall* is investigated) which were becoming increasingly dominated by large employers, and a further shift away from sectoral agreements, again indexed by an increase in company agreements as a share of total agreements. She further reports a pronounced fall in union density (from 27 percent in 1980 to 18.6 percent in 1999) and a sharp increase in non-unionized works councillors (up from 26.5 percent in 1994 to 33.3 percent in 1998).

Now there is a growing literature on the changes under way in Germany's coordinated model of industrial relations (see below), but this has tended to focus

more on the broad theme of decentralization than on presenting a comprehensive review of the facts of the case in terms of the coverage of collective bargaining and worker representation (or drawing on them in the manner of Hassel). As a practical matter, information on such representation tends to be either dated or partial. Thus, we have rather patchy data on sectoral bargaining coverage over the course of the present decade. Much of the information pertains to developments between 1995 and 2001 (Kohaut and Schnabel, 2003a, 2003b). Some more recent studies that confirm the diminishing importance of sectoral agreements identified earlier do not range beyond 2005 (e.g. Kohaut and Schnabel, 2007). Such treatments typically lack supportive data on the course of plant-level collective bargaining proper or the collective bargaining free zone and fail to identify parallel developments in worker representation through works councils.³ Exceptions are the study by Addison et al. (2009) which covers the interval 1998-2004, and upon which the present treatment builds, and the ‘updates’ provided by Ellguth and Kohaut (2008, 2010) in which close attention is paid to the holes in occupational and branch coverage. In another recent treatment, Kohaut and Ellguth (2008) also add an interesting wrinkle in distinguishing between closing, continuing, and new establishments. Our treatment will introduce the latter innovation in presenting comprehensive information on collective bargaining coverage and worker representation.⁴

As noted earlier, the second and dominant strand of the German research has focused on the mechanics of the decentralization process. As we have seen, decentralization is in principle compatible with unchanged sectoral bargaining coverage under ‘regulated decentralization.’ Although they would certainly not contest the facts of changes in institutions and collective bargaining coverage noted earlier, perhaps the majority of observers have concluded from their examination of the collective bargaining process *pace* Hassel that the system is not destabilizing. Thus, it has been argued that experience supports the idea that German employers have a vested interest in maintaining the dual system (e.g. Thelen and Van Wijnbergen, 2003) and that the system admits of powerful flexibility, allowing outsourcing and other adjustments to change without precipitating conflict (e.g. Streeck, 2001), underscored by pervasive cooperation (Frege, 2003). For these observers the dual system remains intact by managing to achieve “transformation without disruption” (Streeck and Thelen, 2004: 4).

While Hassel (1999: 502) would undoubtedly agree with this diagnosis for the category of large manufacturing firms, she would argue that the system is unstable because its glue in the form plant-level codetermination is eroding while the emergence of a growing gap between highly regulated sectors with strong industrial relations institutions and poorly regulated sectors with weak institutions inevitably compounds conflictual relations between companies of different sizes within employer groups, adding to the problem of collective action on the part of these confederations. A similar argument has more recently been advanced by Doellgast and Greer (2007) in a study of outsourcing in the German telecommunications and auto industries. The authors argue that as core employers migrate jobs to subcontractors, subsidiaries, and temporary agencies they introduce new organizational boundaries across the production chain and disrupt traditional bargaining structures. The authors further contend that as a practical matter the response by worker representatives to re-establish representation in the new sectors has failed to restore coordinated bargaining. In other words, they see the system as fragmenting, and view decentralization as increasingly uncontrolled, at least as far the two sectors they examine are concerned.⁵

To a very considerable degree, debate over the ‘transformation without disruption’ issue has proceeded more on the basis of the performance of actual collective agreements rather than upon numerical decline in the institutions of collective bargaining and worker representation. As we have seen, the main exception is Hassel partly because of the emphasis she places on the complementary relation between codetermination and collective bargaining (so that any material erosion of codetermination means that collective bargaining proper will be less able to perform its regulative tasks) and partly because the growth in poorly regulated sectors increases the problem of collective action of employers’ confederations.

In the present treatment, we intend to provide chapter and verse on the course of collective bargaining and worker representation over a longer period than previously examined, distinguishing between mutually exclusive sectoral agreements and firm-level collective bargaining, charting the growth of the collective bargaining free zone, and mapping changes in works council coverage. Our goal is to inform the wider debate although decentralization *within* sectoral bargaining that may be no less disruptive will perforce escape identification. Our maintained hypothesis is that if we

observe substantive long-term institutional change the German model is, as Hassel contends, more likely to be ‘disorganized’ and less likely to be distinctive.

III. Data

Our raw data source is the IAB Establishment Panel (or *Betriebspanel*), a stratified random sample of plants extracted from the population of all establishments with at least one employee covered by social insurance.⁶ From the outset, the Establishment Panel was designed to provide a continuous analysis of the labor market in Germany and as a result it has an interesting longitudinal dimension, allowing us to follow a sizeable number of establishments in successive years over a substantial period of time. Over our sample period – 2000-2008 – the share of establishments that is observed in every single year (or ‘permanent stayers’) approximates 20 percent. The remaining 80 percent comprise pure panel rotations together with establishment births and deaths.

Although the IAB establishment panel contains information on whether any given establishment was created before a certain date, establishments are generally not asked to provide their exact year of birth. Moreover, since the panel questionnaire is not always framed in the same way over time (and the management respondent may differ through time and/or provide inconsistent answers), exclusive reliance on *Betriebspanel* data involves a non-negligible possibility of error in coding the year of birth. More concretely, the actual survey procedure is to ask the establishment respondent whether or not the plant was founded prior to or after the year 1990. Only those answering that the plant was born in or after 1990 are then asked to provide the exact year of birth. The exception is those establishments that are interviewed for the first time, all of which are required to provide information on their year of birth.⁷

In analyzing our raw data, we pay very careful attention to this issue of births (as well as closings/deaths, described below) and the manner of their identification. To this end, we ran various checks to ensure correct enumeration of the number of births (and closings/deaths). To give a quick illustration of the problems of relying exclusively on the *Betriebspanel*, we found that for approximately 8 percent of all establishments over the sample period it was not possible to establish with precision whether the plant was founded before or after 1990. In addition, some 6 percent of those plants reporting that they were not born before 1990 failed to provide the same year of foundation in successive surveys.

In the light of these limitations, it is apparent that the *Betriebspanel* cannot provide an exact map of the year of establishment birth. We therefore decided to follow a different route to identify newly-born establishments. This procedure involved use of the establishment register (or *Betriebsdatei*). Specifically, for all establishments present in the *Betriebspanel* that were interviewed at least once over the 2000-2008 interval (approximately 38,500 units in all), we generated D_t year dummies equal to 1 if the establishment was present in the *Betriebsdatei* in year t , 0 otherwise (where $t = 1995, 1996, \dots, 2009$). Note further that since (a) the *Betriebsdatei* contains, in any given year, all German establishments that have paid social security contributions for at least one of its employees, and (b) the *Betriebspanel* is drawn from the *Betriebsdatei* records, it follows that the two datasets share the same establishment identification code (or *Betriebsnummer*). This means, therefore, that at any given point in time it is possible to determine the year of birth of any establishment in the *Betriebspanel*, assuming that the first year of entry in the *Betriebsdatei* is the correct year of birth.⁸ Finally, we should note that since the *Betriebspanel* is drawn one year in advance – that is, the *Betriebspanel* for year t is extracted from the set of all establishments included in the *Betriebsdatei* in year $t-1$ – an establishment entering the former in year t for the first time will only be coded as a birth if it was observed in the latter in year $t-1$ but not prior to $t-1$.⁹

A similar procedure is used to code establishment closings/deaths. If establishment j leaves the *Betriebspanel* in year t and it is not found in the *Betriebsdatei* in year $t+1$, it will be coded as a death in year $t+1$. We note parenthetically that up to the year 2009 we can also track closings/deaths occurring in the post- $t+1$ period.

(Table 1 near here)

In Table 1 we present the full set of sample categories and their definitions. The mutually exclusive or disjoint categories are such that in any given year it is possible to determine whether: (a) an establishment is in the panel for the first time; (b) it is a continuing or a newly-born establishment; (c) it is present in the panel in any of the following years; and (d) whether an establishment exit from the panel is due to pure rotation or an establishment death. In total, we have thirteen categories. These can then be aggregated to provide, in any given year, the share of births, deaths, and permanent stayers, inter al., as will be discussed in the findings section below. To our knowledge, this is the first time such a detailed decomposition has been attempted,

and we think it is worthwhile given our intention to understand the changing patterns of collective bargaining and worker representation in Germany over a period of almost a full decade. We again note that such an exercise would be impossible without using the *Betriebsdatei* (i.e. in conjunction with the *Betriebspanel*).

To put all our thirteen categories in a unified context, consider, for the sake of the argument, the year 2000. Here Group 1 (entry/birth), for example, is made up of all establishments that are in the IAB panel survey for the first time (i.e. they were not in the 1999 panel) *and* were actually born in 1999 according to the business register. Group 1 is to be distinguished from Group 2 in the sense that although establishments in the latter are also in the panel for the first time, the business register tells us they were born before 1999; from Group 5 since establishments in Group 1 are observed at least once after 2000 (i.e. they are not single-year stayers in the panel); and from Group 6 (Group 7) because establishments in Group 1 do not die/close in 2001 (or later).

Group 4, comprising temporary stayers, is a residual category made up of those establishments that are observed in 2000 (and 1999) and after 2000. (It also can include establishments observed in 2000 and 2008 but not in every single year of the sample.) All single-year panel stayers populate Groups 5 through 10, while establishments exiting the panel in year 2000 (i.e. those observed in 2000 – and in 1999 – but not later) occupy groups 11 to 13.¹⁰

Over the entire 2000-2008 period, the raw sample contains some 140,000 observations. The following filters were then applied to generate a sample of nine cross-sections: first, the selection of all industries except agriculture and the extractive industries; second, the selection of establishments employing at least 5 employees (since this is the employment threshold for works council formation); third, the excision of plants where information on sales is not provided; and, finally, the exclusion of any public corporations. To be included all establishments had also to have information on their collective agreement and works council status. These restrictions resulted in a total of approximately 75,000 observations. All our results in the findings section below are cross-section weighted, using the inverse of the selection probability. Given the nature of the weighting process, it is generally the case that an establishment is allocated different weighting factors in any two subsequent waves.

IV. The Course of Collective Bargaining and Worker Representation, 2000-2008

Data on the extent of collective bargaining coverage and worker representation by establishment and employment for each of the nine cross sections of data is documented in Appendix Table 1. Figures 1 and 2 present the information in more digestible form. At the most general, all-German, level we see that collective bargaining has declined. But the decline is confined to the sectoral level. Plant coverage of sectoral bargaining is down from 47.3 percent in 2000 to 35.4 percent in 2008, while there is some tiny increase in firm-level collective bargaining. The corollary is a marked growth in the proportion of uncovered establishments: plants without a collective agreement of any kind have grown from 50.1 percent to 61.9 percent of the total. For its part, the works council coverage of establishments has slowly but assuredly declined (see Figure 1). When one turns to examine collective bargaining coverage and worker representation by employment (see Figure 2) it is the case that the fall in sectoral bargaining is more muted (from 57.3 percent to 48.1 percent), while there is again a modest rise in the share of firm-level agreements. Nevertheless, the growth in absence of collective bargaining coverage of any kind is still pronounced (up from 35.9 percent in 2000 to 44.2 percent in 2008). Interestingly, the share of workers in works council firms vastly exceeds the share of works council firms – since works councils proliferate in larger establishments – but the decline in works council coverage is still nontrivial on this measure (some 3.5 percentage points).

(Figures 1 and 2 near here)

There are some marked differences in the course of collective bargaining and worker representation between the two halves of Germany. In the east, sectoral bargaining coverage by establishments is markedly lower than in the west but has declined less. In the west, equal numbers of firms had no collective bargaining as had sectoral agreements as early as 2002. If anything, firm-level bargaining is more entrenched in the east and admits of no decline (as is also true of the west). Although firms without collective bargaining of any type much more clearly dominate in the east, the growth of this sector has inevitably been much smaller in the east. On the other hand, both the incidence of and the pattern of decline in the share of plants with works councils is very similar in the two broad regions (see Figure 1). What further regional differences emerge when we turn to look at coverage by employment? Perhaps the most obvious reading of Figure 2 (vis-à-vis Figure 1) is that although the

aggregate results are more clearly driven by the west, the absolute trends tend to be closer.

Two issues not considered earlier are the concept of *orientation* toward a sectoral collective agreement and the *concatenation* of works councils and collective bargaining. Beginning with the former, German employers often claim that though not party to a sectoral agreement they nonetheless orient themselves to one. Now orientation toward a collective agreement may in the limit amount to little more than monitoring, but by the same token it may constitute rather more than that. Clearly further investigation of this issue is required to establish the coerciveness or otherwise of such comparisons. Pending that inquiry, here we simply ask whether the fall in sectoral bargaining/rise in the collective bargaining free zone charted earlier has been accompanied by (possibly offsetting) changes in orientation. At the start of our sample period in 2000 some 25.2 percent of all establishments covering 18.7 percent of all employees claimed to orient themselves towards a collective agreement. By 2008 these proportions had risen to 28.9 percent and 22.7 percent, respectively.¹¹ However, these increases in were eclipsed by the growth in the collective bargaining free zone, such that we observe a falling share of orienting establishments in this firmament; specifically, the share of plants claiming to orient themselves towards a collective agreement fell from 50.6 percent of establishments without a collective agreement in 2000 to 47.9 percent of such plants in 2008. It is therefore hard to resist the conclusion that erosion also attaches to the admittedly black box of orientation.

Next let us consider the joint presence of both pillars of the German system of industrial relations: collective bargaining and workplace codetermination. Although not reported in our tables, the proportion of establishments (employees) covered neither by collective agreements nor by works councils rose from 47.7 percent (29.1 percent) in 2000 to 59.6 percent (35.3 percent) in 2008. The increase was monotonic in the case of employment. Correspondingly the proportion of establishments (employees) having both industrial relations institutions was 7.9 percent (38.5 percent) in 2000, falling to 5.8 percent (32.9 percent) in 2008. More specifically, at the start of the period, 6.5 percent (32.7 percent) of establishments (employees) were covered by sectoral agreements and works councils whereas eight years later only 4.8 percent (26.6 percent) of establishments (employees) were in that position.¹² This indicates a clear erosion of the dual system. And overall, while works council

coverage by establishment and employment fell in sectors with collective bargaining, works council growth was recorded in sectors without collective bargaining.

(Figures 3 near here)

To what extent do the results formally reported thus far compound very different trends at a truly more disaggregate level? To address this issue Appendix Tables 2 through 4 examine the same body of evidence considered earlier for three different configurations of the sample: permanent stayers, newly-founded establishments, and closing establishments, respectively. Also as before this information is presented graphically (in Figures 3 through 5). Beginning with those firms that were present in each wave of the sample period – the category of permanent stayers – the coverage by establishment data summarized in Figure 3 closely resembles those reported earlier for the full sample. This is not simply for the all-German case but also for east and west Germany as well. Thus, for Germany as a whole, sectoral bargaining coverage by establishment declined from 50.1 percent in 2000 to 40.1 percent in 2008 and the share of establishments without collective bargaining of any sort rose from 47.9 percent to 57.6 percent, somewhat less marked than in the entire cross section. Works council coverage also declined but again less markedly. We observe a broadly similar stability in firm-level collective bargaining coverage. There are no major differences at regional level.

(Figure 4 near here)

Greater differences emerge from Figure 4 when we consider coverage by employment. Thus, the gap between sectoral agreements and absence of any agreement admits of less convergence for the permanent stayer sample even if the trends in each are directionally the same. There are also some indications of an increase in works council coverage on this measure. But the main results still stand: a decline in traditional collective bargaining and growth in no agreements. That said, the decline in sectoral bargaining is much less in evidence for east Germany and there is no employment growth in the no-agreement sector. Both indicators in fact display broad stability. Firm-level agreements are somewhat more important in the east than before.

(Figure 5 near here)

If the results for permanent stayers rather closely resemble those reported for the overall sample, what of the experience of newly founded enterprises? Figure 5, which presents results for Germany as a whole (but see Appendix Table 3 for the

regional breakdowns), indicates that the reach of sectoral agreements using either establishment or employment coverage is much lower than for the preceding groups and the importance of the no agreement category correspondingly somewhat elevated. But although the changes are more muted we can say that the directional movements in each are directionally as before for employment coverage (if not establishment coverage). Thus, the employment coverage of sectoral agreements fell from 41.8 percent to 38.4 percent while that of the collective bargaining free sector rose from 52.6 percent to 54.3 percent. (For west Germany, the trends in sectoral bargaining coverage by establishment mirror these results.). Works council employment and establishment coverage declined for both parts of Germany but increased in the case of firm-level bargaining.

(Figure 6 near here)

Finally, Figure 6 summarizes the situation for plant closings and deaths. Perhaps the first observation to be made is that the collective bargaining coverage of plants that close or die is not consistently higher than that of survivors (although more so in the case of employment coverage). By the same token the coverage of the collective bargaining free zone is sometimes higher and sometimes lower among the former group. Nor for that matter is works council employment coverage greater. Rather, the distinctive feature of plant closings/deaths resides in trends that closely match those of the full sample. Thus, their sectoral agreement coverage by establishment (employment) fell from 31.3 percent (45.4 percent) in 2000 to 23.5 percent (39.2 percent) in 2008. The corresponding increases in absence of any coverage were from 61 percent (45.8 percent) in 2000 to 74.2 percent (53.8 percent) in 2008. *Pari passu* with the full sample, works council coverage trended down while firm-level bargaining increased somewhat.

Similarities in disaggregations of the data are more common than the differences. *Vulgo*: sectoral bargaining is in retreat and there is a rise (often steep) in the collective bargaining free zone. Reflecting the latter phenomenon there is no suggestion of a sustained increase in firm-level collective bargaining. There is also no suggestion of an increase in worker representation through works councils. Indeed the evidence is to the contrary so that taken in conjunction with our other findings the implication may well be that there is also a growing codetermination free zone. One tantalizing result is that closing establishments show no tendency to be more subject to sectoral collective bargaining than their surviving counterparts.

In Tables 2 through 4 we present evidence on establishment *transitions* into and out of collective agreements and works councils. In other words, whereas in Figures 1 through 6 (and Appendix Tables 1 through 4) we traced establishment/employment coverage of institutions in successive cross-sections, now the focus shifts to the behavior of individual plants with respect to the same institutional set: firstly, on a year-to-year basis; and, secondly, over the entire 2000-2008 interval.

(Table 2 near here)

Annual transitions are first provided in Table 2 for overlapping cross sections. We consider all possible movements: introductions, abolitions, and no changes in status. The latter category includes situations in which the institution in question either ‘always’ existed or ‘never’ existed. Thus, for example, from 2000 to 2001, we see that 92 percent of all establishments in Germany did not change their 2000 sectoral agreement status: in 44.9 (47.4) percent of the cases the sectoral agreement was always (never) present. By the end of the sample period, roughly the same share recording *no change* in status (i.e. 93 percent) is observed. Alternatively put, 7 to 8 percent of all establishments change their sectoral collective bargaining status over the course of a year, which nevertheless amounts to a fairly considerable amount of churning. Note also that while 44.9 percent of the entire cross section was covered by a sectoral agreement in 2000 and 2001, by the end of the sample period just 32.7 percent of those covered by sectoral bargaining in 2007 maintained that status in 2008. These movements represent a quite dramatic pattern of decline and are indicative of the erosion in sectoral bargaining. (Confirming the evidence presented earlier, the fall in sectoral agreements is, with one exception, monotonically decreasing over our sample period.) A reverse pattern obtains in respect of those plants never covered by a sectoral agreement: these climbed from 47.4 percent of the total in the first column to 60.7 percent in the last column of the table.

Firm-level agreements give the appearance of being an endangered species, with around 97 percent of establishments never being covered by this regime in the overlapping cross sections. Correspondingly, changes in firm-level collective bargaining appear tiny. But again observe that in all cases the proportions refer to the share of sample establishments so that there is in fact fairly considerable outward migration. And as far as works councils are concerned, we observe that they are present in roughly 10 percent of all establishments. Changes in status are fairly similar

to those observed for firm-level agreements and hence are much smaller relatively speaking.¹³

Regional differences are most marked in the case of sectoral collective bargaining insofar as the share of ‘never existing’ agreements is much higher in the east by an almost 20 percentage point margin. Also note that the introduction of firm-level agreements is consistently higher in the east. Regional differences in transitions in the case of works councils are altogether more muted.

(Table 3 near here)

These patterns in sectoral agreements, firm-level collective agreements, and worker representation generally carry over to the population of permanent stayers. The situation is depicted in Table 3. In particular, the ‘always existing’ sectoral agreement category is persistently higher among permanent stayers than for the whole cross-section (cf. the first column of Table 2), a natural result given that permanent stayers are on average of bigger size than the average establishment in the population.

(Table 4 near here)

Finally, in Table 4, we present eight-year transitions for the set of permanent stayers. As expected, for sectoral agreements there are now considerably more joiners and leavers than in the annual transition data. Thus, despite considerable institutional inertia, in approximately 20 percent of such cases establishments surveyed in both 2000 and 2008 do switch status. In other words, one establishment in five either leaves or joins sectoral agreements. The former predominate by about three to one. Unsurprisingly, changes in works council status over the sample period are much less common than for sectoral agreements, at around 6 percent of the total. But even these modest movements are larger than previously observed in the literature. In turn, given that only a small fraction of establishments are actually covered by a firm-level agreement, the reported share of bargaining cessations of 1.4 percent among all permanent stayers again shows that transitions out of firm bargaining are quite substantial – a little over one-half ($=1.4/2.6$) of them will quit bargaining by 2008. Over this interval, east Germany records smaller gross changes (i.e. introductions plus abolitions) in sectoral bargaining and worker representation.

V. Concluding Remarks

Our principal finding is that the erosion in sectoral collective bargaining first observed in the 1990s is ongoing. Moreover, the decline is more or less across the board, such that the similarities observed in disaggregations of the data (across permanent stayers, newly-founded firms, and closing establishments) in this regard are more common than the differences. One interesting subsidiary finding, however, is that closing establishments (if not their newly-founded counterparts) are no more likely to be covered by sectoral agreements than the generality of establishments. There are of course marked regional differences in levels of coverage and the process of change/erosion is also more pronounced in western Germany. We have even raised the possibility of a process of convergence, a latter day *Drang nach Osten* as it were.

We also detect some erosion in works council coverage. Although this trend is not always apparent in the data, it seems that Hassel's (1999) empirical finding is sustained. In other words, there is some indication of a decline in codetermination at plant level which may in turn support Hassel's distinctive *conjecture*, although there is no indication that works council coverage has held up better in sectors with collective agreements. Be that as it may, the dual system seems unequivocally to be in retreat.

Interestingly, there is no real suggestion of any material increase in firm-level collective bargaining. So this is not really where one should look for evidence of decentralization. Although we cannot directly answer whether decentralization is regulated or organized since our data do not allow us to pierce the veil of individual sectoral agreements, we might conclude from the decline in sectoral bargaining and the accompanying sharp rise in the establishment and employment coverage of a collective bargaining free zone that decentralization has been uncontrolled.

Finally, the transitions data generally support pattern of erosion identified here. They further indicate that there is no increasing trend out of sectoral agreements and into firm-level agreements. Indeed, the evidence is to the contrary. Nevertheless, the amount of switching between the two types of collective agreement is robust and further investigation of the dynamics may throw further light on the process of erosion.

Endnotes

1. On these innovations, see Addison et al., 2009, and the references contained therein.
2. She reports that the share of employees in plants with works councils in the private sector fell from 52.4 percent in 1981 through 47.3 percent in 1990 to 41.6 percent in 1994.
3. Studies of works council coverage are typically separate. The best-known such studies have been those conducted by the Institute for Economic and Social Research/WSI (*Wirtschafts- und Sozialwissenschaftliches Institut*) of the Hans-Böckler-Stiftung. Every two years since 1998 the WSI has conducted representative nationwide surveys of works councils (see Schäfer, 2005). The surveys contain information on coverage as well as the attitude of works councils on collective bargaining issues, including the decentralization of collective bargaining through opening clauses and pacts for employment and competitiveness.
4. Lacking consistent data, we do not consider employee representation vehicles other than works councils. On the reach of such company-specific forms of employee representation, see Ellguth (2006); Ellguth and Kohaut (2008).
5. For a similar conclusion based on an analysis of concession bargaining under pacts for employment and competitiveness, see Massa-Wirth and Niechoj (2004).
6. For a detailed description of the dataset, see Fischer et al., 2009.
7. Three surveys within our sample period – those for 2000, 2004, and 2007 – inquired as to the year of birth of *all* establishments.
8. Clearly, the two will diverge if the establishment fails to pay the social security tax in a timely fashion and this is a limitation of our approach. By the same token, our approach offers a consistent strategy since we also use the establishment register to identify deaths.
9. To be on the safe side, we actually checked for presence in the *Betriebsdatei* up to year $t-5$.
10. Observe that the five categories in the study by Addison et al. (2009) can easily be derived from this 13-group disaggregation.
11. As before, there were marked differences between east and west: in the western half of Germany the share of orienting firms (employees) rose from 23.2 percent (17.3 percent) to 28.3 percent (21.9 percent), whereas in the east declines in both shares were reported. Full details are available from the authors upon request.

12. Corresponding values for joint coverage by firm-level agreements and works councils were 1.4 percent (5.8 percent) in 2000 and 1.0 percent (6.3 percent) in 2008.

13. We also investigated movements between types of collective bargaining. For Germany as a whole, movements out of sectoral into firm-level agreements *declined* through time: from 1.0 percent in 2000/2001 to 0.7 percent in 2007/2008. The same downward tendency was apparent in both halves of Germany. And at a time of declining sectoral agreements, considerable movement out of firm-level into sectoral collective bargaining is still observed. For Germany as a whole, 18.8 percent (14.5 percent) of establishments covered by a firm-level collective agreement in 2000 (2007) switched to a sectoral agreement in 2001 (2008). Such switching was always lower – oftentimes very much lower – in eastern than in western Germany. Full information is available from the authors upon request.

References

- Addison, John T., Alex Bryson, Paulino Teixeira, André Pahnke, and Lutz Bellmann. 2009. "The Extent of Collective Bargaining and Workplace Representation: Transitions between States and their Determinants. A Comparative Analysis of Germany and Great Britain." CEP Discussion Paper No. 954. London School of Economics: Centre for Economic Performance, October.
- Addison, John T., Claus Schnabel, and Joachim Wagner. 2007. "The (Parlous) State of German Unions." *Journal of Labor Research* 28 (Winter): 3-18.
- Bellmann, Lutz and Peter Ellguth. 2006. "Verbreitung von Betriebsräten und ihr Einfluss auf die betrieblichen Weiterbildung." *Jahrbücher für Nationalökonomie und Statistik* 226 (5): 487-504.
- Doellgast, Virginia and Ian Greer. 2007. "Vertical Disintegration and the Disorganization of German Industrial Relations." *British Journal of Industrial Relations* 45 (March): 55-76.
- Ingrid Artus (Hg.), Sabine Böhm (Hg.), Stefan Lücking (Hg.), Rainer Trinczek (Hg.)
- Ellguth, Peter. 2006. "Betriebe ohne Betriebsrat. Verbreitung, Entwicklung und Charakteristika - unter Berücksichtigung betriebsspezifischer Formen der Mitarbeitervertretung" In Ingrid Artus, Sabine Böhm, Stefan Lücking and Rainer Trinczek (eds.), *Betriebe ohne Betriebsrat. Informelle Interessenvertretung in Unternehmen*. Frankfurt am Main: Campus Verlag, pp. 43-80.
- Ellguth, Peter and Susanne Kohaut. 2008. "Tarifbindung und betriebliche Interessenvertretung. Aktuelle Ergebnisse aus dem IAB-Betriebspanel 2007." *WSI-Mitteilungen* 61 (9): 515-519.
- Ellguth, Peter and Susanne Kohaut. 2010. "Tarifbindung und betriebliche Interessenvertretung - aktuelle Ergebnisse aus dem IAB-Betriebspanel 2009." *WSI-Mitteilungen* 63 (4): 204-209.
- Fischer, Gabriele, Florian Janik, Dana Müller, and Alexandra Schmucker. 2009. "The IAB Establishment Panel: Things Users Should Know." *Schmollers Jahrbuch* 129 (1): 133-148.
- Frege, Carola M. 2003. "Transforming German Workplace Relations: Quo Vadis Cooperation?" *Economic and Industrial Democracy* 24 (August): 317-347.
- Hassel, Anke. 1999, "The Erosion of the German System of Industrial Relations." *British Journal of Industrial Relations* 37 (September): 483-505.
- Hassel, Anke. 2002. "The Erosion Continues: Reply [to Klikauer]." *British Journal of Industrial Relations* 40 (June): 309-317.
- Klikauer, Thomas. 2002. "Stability in Germany's Industrial Relations: A Critique on Hassel's Erosion Thesis." *British Journal of Industrial Relations* 40 (June): 295-308.

Kohaut, Susanne and Claus Schnabel. 2003a. "Tarifverträge – nein danke? Ausmaß und Einflussfaktoren der Tarifbindung west- und ostdeutscher Betriebe." *Jahrbücher für Nationalökonomie und Statistik* 223 (May); 312-333.

Kohaut, Susanne and Claus Schnabel. 2003b. "Zur Erosion des Flächentarifvertrags: Ausmaß, Einflussfaktoren und Gegenmaßnahmen." *Industrielle Beziehungen* 10 (2): 193-219.

Kohaut, Susanne and Claus Schnabel. 2007. "Tarifliche Öffnungsklauseln: Verbreitung, Inanspruchnahme und Bedeutung." *Sozialer Fortschritt* 56 (2): 33-40.

Kohaut, Susanne and Peter Ellguth. 2008. "Neue gegründete Betriebe sind seltener tarifgebunden." *IAB-Kurzbericht* 16: 1-8.

Massa-Wirth, Heiko and Torsten Niechoj. 2004. "Supranational Coordination but National Fragmentation: Interplay of European Economic Policy and Firm-Level Pacts in Germany." Düsseldorf: Das Wirtschafts- und Sozialwissenschaftliche Institut (WSI) der Hans-Böckler-Stiftung. Available online at http://poloek-dvpw.mpifg.de/e_documents/publikationen/Massa-wirth%20Niechoj%20-%20Supranational%20Coordination.pdf

Schäfer, Claus. 2005. "Die WSI-Befragung von Betriebs- und Personalräten 2004/2005 – ein Überblick." *WSI-Mitteilungen* 12 : 669-676.

Silvia, Stephen J. and Wolfgang Schroeder. 2007. "Why Are German Employers' Associations Declining? Arguments and Evidence" *Comparative Political Studies* 40 (December): 1433-1459.

Thelen, Katherine. 1991. *Union of Parts: Labor Politics in Postwar Germany*. Ithaca, NY: Cornell University Press.

Thelen, Katherine and Christa Van Wijnbergen. 2003. "The Paradox of Globalization: Labor relations in Germany and Beyond." *Comparative Political Studies* 36 (October): 859-880.

Streeck, Wolfgang. 2001. "The Transformation of Corporate Organization in Europe: An Overview." Cologne: Max-Planck Institute for the Study of Societies.

Streeck, Wolfgang and Katherine Thelen. 2004. "Introduction: Institutional Change in Advanced Political Economies." In Wolfgang Streeck and Katherine Thelen (eds.), *Beyond Continuity: Institutional Change in Advanced Political Economies*. New York: Oxford University Press, pp. 1-39.

TABLE 1
The Categories of the Sample and their Definitions

#	Main categories	#	Subcategories	Definitions: in a given year t , an establishment j in the sample either:-
1	Entry	1	entry/birth	was born in $t-1$ and is observed again in $t+1$ (and possibly some time later)
		2	entry/existing	is a continuing establishment (i.e. it was observed before $t-1$) and is observed again in $t+1$ (and possibly some time later)
2	permanent stayer	3	permanent stayer	is observed in every single year of the interval 2000-2008
3	temporary stayer	4	temporary stayer	was observed at least once before t and at least once after t
4	1-period-stayer	5	1-period-stayer/birth/leaver	is only observed in t and was born in $t-1$
		6	1-period-stayer/birth/dead 'A'	is only observed in t and was born in $t-1$ and dies in $t+1$
		7	1-period-stayer/birth/dead 'B'	is only observed in t and was born in $t-1$ and dies after $t+1$
		8	1-period-stayer/leaver	is only observed in t and is a continuing establishment and leaves the panel in $t+1$
		9	1-period-stayer/dead 'A'	is only observed in t and is a continuing establishment and dies in $t+1$
		10	1-period-stayer/dead 'B'	is only observed in t and is a continuing establishment and dies after $t+1$
5	Exit	11	exit/leaver	was observed at least once in the interval between 1999 and t and leaves the panel in $t+1$
		12	exit/dead 'A'	was observed at least once in the interval between 1999 and t and dies in $t+1$
		13	exit/dead 'B'	was observed at least once in the interval between 1999 and t , leaves the panel in $t+1$, and dies after $t+1$

TABLE 2
Annual Transitions in Collective Bargaining and Works Council Status for Germany and by Broad Region, 2000-2004, All Establishments, Weighted Data

		From 2000 to 2001			From 2001 to 2002			From 2002 to 2003			From 2003 to 2004		
		Germany	West	East	Germany	West	East	Germany	West	East	Germany	West	East
Sectoral Agreement	Always existing	44.9%	50.1%	25.5%	42.1%	47.8%	22.3%	42.4%	47.3%	21.0%	38.8%	43.4%	19.8%
	Introduced	3.6%	3.8%	2.5%	2.9%	3.3%	1.5%	2.9%	3.0%	2.8%	2.8%	2.7%	3.1%
	Abolished	4.2%	4.7%	2.4%	5.0%	5.1%	4.4%	4.5%	4.9%	3.0%	4.6%	5.3%	1.6%
	Never existing	47.4%	41.3%	69.6%	50.1%	43.8%	71.8%	50.1%	44.8%	73.2%	53.9%	48.6%	75.6%
	Net change	-0.6%	-0.8%	0.1%	-2.1%	-1.8%	-2.9%	-1.6%	-1.9%	-0.3%	-1.8%	-2.6%	1.5%
	<i>N</i>	589,260	462,960	126,301	655,613	508,618	146,994	644,837	524,244	120,593	719,959	579,002	140,958
Firm-Level Agreement	Always existing	1.6%	1.1%	3.6%	1.8%	1.3%	3.3%	1.5%	1.1%	3.2%	1.3%	1.0%	2.7%
	Introduced	1.0%	0.9%	1.1%	0.8%	0.8%	1.0%	0.5%	0.4%	0.9%	0.7%	0.6%	1.0%
	Abolished	0.8%	0.8%	1.0%	0.9%	1.0%	0.6%	0.6%	0.5%	1.0%	0.4%	0.3%	0.9%
	Never existing	96.5%	97.2%	94.3%	96.5%	96.9%	95.1%	97.4%	98.0%	94.9%	97.6%	98.1%	95.5%
	Net change	0.1%	0.1%	0.1%	-0.1%	-0.3%	0.3%	-0.1%	-0.1%	-0.1%	0.2%	0.3%	0.1%
	<i>N</i>	589,261	462,960	126,301	655,612	508,618	146,994	644,837	524,245	120,593	719,959	579,001	140,957
Works Council	Always existing	10.9%	11.1%	9.9%	8.2%	8.4%	77.6%	8.7%	8.8%	7.9%	7.8%	7.7%	8.1%
	Introduced	0.0%	0.0%	0.0%	1.4%	1.5%	1.2%	0.7%	0.7%	0.4%	0.6%	0.6%	0.4%
	Abolished	0.0%	0.0%	0.0%	2.6%	2.7%	2.3%	0.8%	0.9%	0.3%	0.7%	0.7%	0.8%
	Never existing	89.1%	88.9%	90.1%	87.8%	87.5%	88.9%	89.9%	89.6%	91.4%	90.9%	91.0%	90.7%
	Net change	0.0%	0.0%	0.0%	-1.2%	-1.2%	-1.2%	-0.1%	-0.1%	0.0%	-0.2%	-0.1%	-0.4%
	<i>N</i>	589,261	462,960	126,301	654,156	507,359	146,795	645,838	525,245	120,593	716,219	575,637	140,582

TABLE 2 (Cont.)

		From 2004 to 2005			From 2005 to 2006			From 2006 to 2007			From 2007 to 2008		
		Germany	West	East	Germany	West	East	Germany	West	East	Germany	West	East
Sectoral Agreement	Always existing	36.7%	40.7%	20.3%	36.2%	39.7%	21.3%	34.1%	37.7%	18.8%	32.7%	35.9%	20.3%
	Introduced	3.4%	3.4%	3.3%	2.0%	2.0%	2.1%	2.3%	2.3%	2.4%	3.2%	3.6%	1.7%
	Abolished	3.3%	3.6%	2.0%	4.3%	4.6%	2.8%	3.8%	4.2%	2.0%	3.3%	3.4%	2.9%
	Never existing	56.6%	52.3%	74.4%	57.5%	53.7%	73.8%	59.8%	55.8%	76.8%	60.7%	57.0%	75.1%
	Net change	0.1%	-0.2%	1.3%	-2.3%	-2.7%	-0.7%	-1.5%	-1.9%	0.4%	-0.1%	0.2%	-1.2%
	<i>N</i>	675,115	545,698	129,777	699,631	566,607	133,023	687,950	557,298	130,653	719,404	571,266	148,137
Firm-Level Agreement	Always existing	2.0%	1.6%	3.3%	1.6%	1.2%	3.0%	1.5%	1.1%	3.4%	1.7%	1.2%	3.9%
	Introduced	0.6%	0.4%	1.4%	0.5%	0.4%	0.9%	0.6%	0.4%	1.2%	0.6%	0.7%	0.5%
	Abolished	0.5%	0.5%	0.5%	0.6%	0.6%	0.7%	0.7%	0.6%	1.0%	0.6%	0.5%	0.6%
	Never existing	97.0%	97.5%	94.8%	97.4%	97.8%	95.5%	97.3%	98.0%	94.4%	97.1%	97.6%	95.0%
	Net change	0.1%	-0.1%	0.9%	-0.1%	-0.1%	0.2%	-0.1%	-0.2%	0.1%	0.1%	0.1%	-0.1%
	<i>N</i>	675,155	545,338	129,777	699,630	566,607	133,022	687,950	557,298	130,652	719,403	571,267	148,137
Works Council	Always existing	8.4%	8.5%	7.8%	8.2%	8.2%	8.4%	8.1%	8.2%	7.8%	7.7%	7.8%	7.4%
	Introduced	0.5%	0.5%	0.6%	0.4%	0.4%	0.2%	0.4%	0.4%	0.2%	0.6%	0.7%	0.3%
	Abolished	0.3%	0.3%	0.4%	0.8%	0.8%	0.5%	0.3%	0.3%	0.3%	0.4%	0.4%	0.4%
	Never existing	90.8%	90.7%	91.2%	90.6%	90.5%	90.9%	91.2%	91.1%	91.7%	91.2%	91.1%	91.9%
	Net change	0.2%	0.2%	0.1%	-0.4%	-0.4%	-0.4%	0.1%	0.1%	-0.1%	0.2%	0.3%	-0.1%
	<i>N</i>	675,129	545,353	129,778	699,630	566,607	133,023	687,736	557,303	130,432	719,642	571,505	148,137

TABLE 3
Annual Transitions in Collective Bargaining and Works Council Status for Germany and by Broad Region, 2000-2004, Permanent Stayers, Weighted Data

		From 2000 to 2001			From 2001 to 2002			From 2002 to 2003			From 2003 to 2004		
		Germany	West	East	Germany	West	East	Germany	West	East	Germany	West	East
Sectoral Agreement	Always existing	46.7%	53.3%	26.0%	44.2%	52.0%	23.1%	46.3%	53.6%	23.7%	44.1%	51.4%	22.8%
	Introduced	2.8%	2.5%	3.5%	2.9%	3.3%	1.9%	2.5%	2.7%	1.9%	1.5%	1.5%	1.5%
	Abolished	2.7%	3.1%	1.7%	4.6%	4.6%	4.6%	3.4%	3.8%	2.3%	4.1%	5.0%	1.5%
	Never existing	47.9%	41.1%	68.8%	48.2%	40.1%	70.3%	47.8%	39.9%	72.1%	50.2%	42.1%	74.2%
	Net change	0.0%	-0.5%	1.8%	-1.7%	-1.3%	-2.7%	-1.0%	-1.2%	-0.5%	-2.6%	-3.5%	0.0%
	<i>N</i>	151,853	114,735	37,118	157,265	114,924	42,341	155,478	117,424	38,054	148,167	110,602	37,565
Firm-Level Agreement	Always existing	2.3%	1.5%	4.6%	2.1%	1.2%	4.6%	1.3%	0.8%	3.0%	1.8%	1.3%	3.2%
	Introduced	1.4%	1.6%	1.1%	0.3%	0.2%	0.4%	0.5%	0.5%	0.5%	1.2%	1.5%	0.3%
	Abolished	0.3%	0.0%	1.2%	1.2%	1.3%	0.9%	0.8%	0.7%	1.0%	0.2%	0.1%	0.4%
	Never existing	95.9%	96.9%	93.1%	96.5%	97.3%	94.1%	97.4%	98.1%	95.5%	96.8%	97.0%	96.1%
	Net change	1.1%	1.5%	-0.2%	-0.9%	-1.1%	-0.4%	-0.2%	-0.2%	-0.5%	1.0%	1.4%	-0.1%
	<i>N</i>	151,853	114,734	37,118	157,265	114,924	42,341	155,478	117,424	38,054	148,166	110,603	37,564
Works Council	Always existing	11.1%	10.7%	12.4%	7.6%	7.6%	7.7%	8.5%	8.8%	7.8%	8.9%	9.1%	8.3%
	Introduced	0.0%	0.0%	0.0%	0.9%	1.1%	0.5%	0.7%	0.9%	0.1%	0.2%	0.1%	0.3%
	Abolished	0.0%	0.0%	0.0%	3.1%	3.2%	2.8%	0.4%	0.4%	0.3%	0.4%	0.3%	0.6%
	Never existing	88.9%	89.3%	87.6%	88.4%	88.1%	89.1%	90.4%	89.9%	91.8%	90.5%	90.5%	90.8%
	Net change	0.0%	0.0%	0.0%	-2.1%	-2.1%	-2.3%	0.3%	0.5%	-0.2%	-0.2%	-0.2%	-0.3%
	<i>N</i>	151,853	114,735	37,118	157,265	114,924	42,341	155,479	117,457	38,054	148,167	110,602	37,565

TABLE 3 (Cont.)

		From 2004 to 2005			From 2005 to 2006			From 2006 to 2007			From 2007 to 2008		
		Germany	West	East	Germany	West	East	Germany	West	East	Germany	West	East
Sectoral Agreement	Always existing	42.6%	48.4%	24.2%	41.2%	46.6%	24.5%	37.7%	42.8%	21.7%	36.6%	41.4%	22.6%
	Introduced	3.0%	2.3%	4.9%	1.1%	1.3%	0.5%	2.0%	1.7%	2.9%	3.5%	4.3%	1.3%
	Abolished	2.8%	2.9%	2.2%	3.3%	3.1%	3.7%	4.6%	5.8%	0.8%	3.5%	3.2%	4.2%
	Never existing	51.7%	46.4%	68.7%	54.4%	48.9%	71.3%	55.7%	49.7%	74.5%	56.4%	51.0%	71.9%
	Net change	0.2%	-0.6%	2.7%	-2.1%	-1.8%	-3.2%	-2.6%	-4.1%	2.1%	0.0%	1.1%	-2.9%
	<i>N</i>	150,288	114,463	35,824	148,835	112,449	36,385	147,964	112,206	35,758	151,394	112,196	39,198
Firm-Level Agreement	Always existing	2.7%	2.5%	3.2%	2.5%	2.1%	3.6%	1.8%	1.1%	4.1%	2.1%	1.0%	5.2%
	Introduced	0.3%	0.0%	1.2%	0.3%	0.1%	0.9%	0.7%	0.6%	1.2%	0.3%	0.1%	0.8%
	Abolished	0.1%	0.1%	0.3%	0.4%	0.4%	0.6%	1.3%	1.3%	1.2%	0.7%	0.7%	0.7%
	Never existing	96.9%	97.4%	95.3%	96.7%	97.4%	94.8%	96.1%	97.0%	93.5%	96.9%	98.2%	93.4%
	Net change	0.2%	-0.1%	0.9%	-0.2%	-0.3%	0.3%	-0.6%	-0.7%	0.0%	-0.4%	-0.6%	0.1%
	<i>N</i>	150,287	114,463	35,824	148,835	112,449	36,385	147,965	112,206	35,758	151,394	112,196	39,198
Works Council	Always existing	8.4%	8.6%	7.6%	8.6%	8.7%	8.2%	9.4%	9.9%	7.7%	8.8%	9.1%	8.0%
	Introduced	0.4%	0.4%	0.3%	0.5%	0.6%	0.1%	0.2%	0.2%	0.1%	0.9%	1.1%	0.5%
	Abolished	0.5%	0.6%	0.3%	0.8%	0.9%	0.4%	0.1%	0.1%	0.2%	0.3%	0.3%	0.1%
	Never existing	90.7%	90.4%	91.8%	90.1%	89.8%	91.2%	90.4%	89.8%	92.0%	90.0%	89.5%	91.5%
	Net change	-0.2%	-0.2%	0.0%	-0.3%	-0.4%	-0.3%	0.1%	0.1%	-0.2%	0.6%	0.7%	0.4%
	<i>N</i>	150,287	114,463	35,824	148,835	112,450	36,385	147,964	112,206	35,758	151,394	112,196	39,198

TABLE 4
 Eight-year Transitions in Collective Bargaining and Works Council Status for Germany and by Broad Region,
 2000-2008, Permanent Stayers, Weighted Data

	Sectoral Agreement			Firm-level Agreement			Works Council		
	Germany	West	East	Germany	West	East	Germany	West	East
Always existing	35.1%	40.8%	18.9%	1.2%	0.6%	3.1%	8.3%	8.5%	7.8%
Introduced	5.0%	5.0%	5.0%	1.2%	0.5%	2.9%	1.4%	1.7%	0.6%
Abolished	15.0%	16.4%	11.1%	1.4%	1.0%	2.6%	4.4%	4.1%	5.5%
Never existing	44.9%	37.9%	64.9%	96.2%	97.9%	91.4%	85.8%	85.7%	86.1%
Net change	-10.1%	-11.5%	-6.2%	-0.2%	-0.4%	0.3%	-3.0%	-2.4%	-4.9%
<i>N</i>	151,394	112,196	39,198	151,394	112,196	39,198	151,394	112,196	39,198

APPENDIX TABLE 1
 Collective Bargaining and Works Council Coverage for Germany and by Broad Region, 2000-2008, All
 Establishments, Weighted Data

Year	Region	Collective Agreement Status								Totals	
		Sectoral Agreement		Firm-Level Agreement		No Agreement		Works Council			
		I	II	I	II	I	II	I	II	I	II
2000	Germany	47.3%	57.3%	2.5%	6.8%	50.1%	35.9%	10.3%	45.2%	855,135	20,063,803
	West	52.3%	60.9%	2.2%	6.2%	45.5%	32.9%	10.4%	46.9%	687,189	16,740,291
	East	26.9%	39.3%	4.1%	9.9%	69.0%	50.8%	10.1%	36.8%	167,946	3,323,512
2001	Germany	45.8%	57.3%	2.6%	9.2%	51.6%	35.1%	10.2%	46.0%	823,286	19,646,467
	West	50.6%	61.5%	2.2%	6.5%	47.3%	32.0%	10.2%	47.7%	659,853	16,265,407
	East	26.5%	37.2%	4.4%	12.9%	69.1%	49.8%	9.9%	37.5%	163,433	3,381,060
2002	Germany	44.2%	56.8%	2.5%	7.0%	53.3%	36.2%	9.2%	45.8%	846,571	19,789,917
	West	49.1%	60.7%	2.1%	6.0%	48.9%	33.2%	9.3%	47.3%	685,555	16,543,690
	East	23.6%	36.6%	4.4%	11.8%	72.0%	51.6%	9.0%	38.5%	161,016	3,246,226
2003	Germany	43.2%	55.9%	2.1%	7.1%	54.8%	37.0%	8.9%	44.7%	841,910	19,676,598
	West	48.3%	59.6%	1.7%	6.5%	50.0%	33.9%	9.0%	46.2%	678,465	16,426,937
	East	22.0%	36.9%	3.6%	10.1%	74.4%	53.1%	8.5%	36.9%	163,445	3,249,662
2004	Germany	40.0%	54.4%	2.4%	7.3%	57.6%	38.4%	8.6%	44.0%	836,702	19,548,250
	West	44.3%	58.1%	2.1%	6.7%	53.6%	35.3%	8.7%	45.3%	674,037	16,301,180
	East	22.3%	35.7%	3.5%	10.2%	74.2%	54.0%	8.3%	37.4%	162,664	3,247,070
2005	Germany	39.8%	52.9%	2.6%	7.7%	57.6%	39.4%	9.0%	43.5%	826,191	19,534,713
	West	43.7%	56.2%	2.2%	7.2%	54.1%	36.7%	9.2%	45.0%	668,722	16,340,323
	East	23.5%	36.2%	4.3%	10.6%	72.3%	53.2%	8.2%	36.1%	157,469	3,194,390
2006	Germany	37.4%	50.5%	2.2%	7.6%	60.4%	41.9%	8.7%	42.6%	854,739	20,300,287
	West	40.7%	53.6%	1.7%	6.8%	57.6%	39.6%	8.8%	43.9%	696,283	16,993,144
	East	23.0%	34.9%	4.0%	11.6%	73.0%	53.5%	8.3%	35.7%	158,455	3,307,143
2007	Germany	36.1%	49.6%	2.3%	7.1%	61.6%	43.3%	8.2%	41.8%	845,867	20,877,923
	West	39.5%	52.6%	1.8%	6.4%	58.8%	41.0%	8.3%	43.4%	687,572	17,544,698
	East	21.6%	33.8%	4.4%	11.2%	74.0%	55.0%	7.9%	33.7%	158,294	3,333,224
2008	Germany	35.4%	48.1%	2.7%	7.7%	61.9%	44.2%	8.1%	41.7%	890,681	21,860,557
	West	38.5%	51.0%	2.2%	7.1%	59.3%	41.9%	8.2%	43.3%	716,913	18,248,031
	East	22.7%	33.5%	4.4%	10.9%	72.9%	55.6%	7.6%	33.8%	173,768	3,612,526

Note: I denotes the proportion of establishments; II denotes the proportion of employees.

APPENDIX TABLE 2
Collective Bargaining and Works Council Coverage for Germany and by Broad Region, 2000-2008, Permanent Stayers, Weighted Data

Year	Region	Collective Agreement Status						Works Council		Totals	
		Sectoral Agreement		Firm-Level Agreement		No Agreement					
		I	II	I	II	I	II	I	II	I	II
2000	Germany	50.1%	60.0%	2.0%	5.0%	47.9%	35.0%	10.6%	41.5%	171,876	4,028,286
	West	57.3%	65.9%	1.2%	3.8%	41.5%	30.3%	10.3%	42.6%	132,017	3,137,725
	East	26.2%	39.1%	4.6%	9.1%	69.2%	51.8%	11.5%	37.8%	39,859	890,561
2001	Germany	49.4%	59.0%	3.7%	6.5%	46.8%	34.4%	11.1%	43.6%	151,853	3,852,728
	West	55.9%	64.7%	3.1%	5.0%	41.0%	30.2%	10.7%	44.7%	114,735	2,993,209
	East	29.5%	39.2%	5.7%	11.8%	64.8%	49.0%	12.4%	39.8%	37,118	859,518
2002	Germany	47.2%	59.4%	2.4%	6.6%	50.5%	34.1%	8.6%	42.5%	157,265	3,872,532
	West	55.3%	66.0%	1.4%	5.0%	43.3%	29.0%	8.7%	44.7%	114,924	2,971,354
	East	25.1%	37.6%	5.0%	11.5%	69.9%	50.9%	8.1%	34.9%	42,341	901,177
2003	Germany	48.7%	59.7%	1.8%	7.2%	49.4%	33.1%	9.2%	45.6%	155,478	4,042,618
	West	56.3%	65.3%	1.3%	6.2%	42.5%	28.6%	9.7%	47.8%	117,424	3,156,874
	East	25.6%	40.1%	3.5%	10.9%	70.9%	49.0%	7.9%	38.0%	38,054	885,744
2004	Germany	45.7%	56.4%	3.0%	7.7%	51.3%	35.9%	9.1%	43.8%	148,167	3,682,439
	West	52.9%	62.1%	2.9%	6.9%	44.2%	31.0%	9.2%	45.4%	110,602	2,875,064
	East	24.3%	36.1%	3.5%	10.5%	72.2%	53.4%	8.6%	38.3%	37,565	807,375
2005	Germany	45.5%	55.9%	3.0%	6.7%	51.5%	37.4%	8.7%	41.9%	150,288	3,605,185
	West	50.7%	60.1%	2.5%	5.7%	46.8%	34.3%	9.0%	43.0%	114,463	2,834,727
	East	29.1%	40.3%	4.4%	10.6%	66.5%	49.1%	7.9%	37.7%	35,824	770,458
2006	Germany	42.3%	55.5%	2.8%	6.9%	54.8%	37.7%	9.1%	44.4%	148,835	3,664,627
	West	48.0%	60.2%	2.2%	6.0%	49.8%	33.8%	9.3%	46.4%	112,449	2,898,135
	East	25.0%	37.6%	4.6%	10.3%	70.4%	52.2%	8.3%	36.7%	36,385	766,492
2007	Germany	39.7%	53.7%	2.6%	7.1%	57.8%	39.2%	9.5%	46.7%	147,964	3,947,225
	West	44.5%	57.6%	1.7%	6.5%	53.8%	36.0%	10.1%	49.3%	112,206	3,170,173
	East	24.6%	38.1%	5.3%	9.7%	70.0%	52.2%	7.7%	36.2%	35,758	777,053
2008	Germany	40.1%	52.8%	2.4%	7.4%	57.6%	39.8%	9.7%	48.0%	151,394	4,045,311
	West	45.7%	56.8%	1.1%	6.0%	53.2%	37.2%	10.2%	50.3%	112,196	3,179,942
	East	23.9%	38.1%	6.0%	12.6%	70.1%	49.4%	8.4%	39.7%	39,198	865,369

Note: I denotes the proportion of establishments; II denotes the proportion of employees.

APPENDIX TABLE 3
Collective Bargaining and Works Council Coverage for Germany and by Broad Region, 2000-2008, Newly-Founded Establishments, Weighted Data

Year	Region	Collective Agreement Status								Totals	
		Sectoral Agreement		Firm-Level Agreement		No Agreement		Works Council			
		I	II	I	II	I	II	I	II	I	II
2000	Germany	33.0%	41.8%	2.2%	5.6%	64.8%	52.6%	6.1%	38.1%	51,767	922,628
	West	38.6%	43.4%	2.3%	6.2%	59.1%	50.4%	6.2%	40.7%	39,502	742,246
	East	15.0%	35.6%	2.0%	3.0%	83.0%	61.4%	5.8%	27.5%	12,265	180,382
2001	Germany	30.0%	43.8%	5.0%	10.2%	65.0%	46.0%	10.5%	38.8%	47,494	805,435
	West	38.1%	50.6%	6.1%	10.4%	55.8%	39.0%	11.9%	41.4%	35,637	661,509
	East	5.7%	12.9%	1.8%	9.0%	92.5%	78.1%	6.5%	26.9%	11,857	143,926
2002	Germany	30.9%	46.3%	2.0%	7.1%	67.2%	46.6%	6.6%	37.8%	50,909	842,489
	West	33.1%	49.4%	1.2%	5.5%	65.7%	45.1%	5.9%	38.0%	43,083	706,103
	East	18.8%	30.3%	6.2%	15.3%	75.0%	54.4%	10.3%	37.0%	7,826	136,386
2003	Germany	35.1%	31.6%	1.9%	9.7%	63.0%	58.7%	5.6%	28.5%	6,661	100,132
	West	54.8%	38.9%	3.0%	12.5%	42.2%	48.5%	6.3%	30.7%	3,790	64,771
	East	9.2%	18.2%	0.4%	4.5%	90.4%	77.3%	4.6%	24.5%	2,871	35,361
2004	Germany	27.7%	39.0%	3.6%	9.9%	68.7%	51.1%	7.2%	36.5%	56,895	981,487
	West	31.2%	42.0%	4.2%	10.8%	64.6%	47.2%	8.7%	39.1%	41,378	749,189
	East	18.5%	29.5%	1.8%	6.8%	79.7%	63.7%	2.2%	8.2%	15,517	232,298
2005	Germany	37.0%	42.6%	1.2%	4.5%	61.8%	52.9%	6.5%	23.0%	60,896	952,386
	West	38.4%	43.0%	0.7%	3.7%	61.0%	53.3%	7.2%	25.6%	50,308	783,083
	East	33.3%	40.9%	3.7%	7.9%	65.6%	51.2%	3.2%	11.3%	10,589	169,303
2006	Germany	30.8%	40.4%	2.8%	5.9%	66.4%	53.7%	7.4%	24.2%	64,603	1,003,675
	West	33.2%	44.0%	2.6%	4.9%	64.2%	51.1%	8.4%	26.4%	50,235	802,905
	East	22.5%	26.1%	3.6%	9.6%	74.0%	64.3%	3.6%	15.4%	14,369	200,770
2007	Germany	29.6%	39.0%	3.7%	4.3%	66.8%	56.7%	4.7%	24.7%	68,967	1,198,914
	West	31.2%	41.2%	4.2%	3.6%	64.6%	55.2%	4.5%	25.9%	55,260	982,876
	East	22.9%	29.0%	1.5%	7.2%	75.6%	63.8%	5.5%	19.1%	13,708	216,038
2008	Germany	32.5%	38.4%	3.3%	7.3%	64.2%	54.3%	5.2%	25.6%	74,172	1,208,916
	West	33.9%	39.1%	3.4%	7.4%	62.7%	53.5%	5.2%	26.4%	60,048	1,012,792
	East	26.4%	34.6%	2.9%	6.7%	70.7%	58.7%	5.0%	21.4%	14,124	196,124

Notes: Newly-founded establishments correspond to the sum of groups 1, 5, 6, and 7 in Table 1.

I denotes the proportion of establishments; II denotes the proportion of employees.

APPENDIX TABLE 4

Collective Bargaining and Works Council Coverage for Germany and by Broad Regions, 2000-2008,
Closing/Failing Establishments, Weighted Data

Year	Region	Collective Agreement Status								Totals	
		Sectoral Agreement		Firm-Level Agreement		No Agreement		Works Council			
		I	II	I	II	I	II	I	II	I	II
2000	Germany	31.3%	45.4%	7.7%	8.8%	61.0%	45.8%	13.3%	30.8%	27,253	480,266
	West	35.9%	51.9%	6.8%	6.2%	57.4%	41.9%	13.9%	30.3%	20,131	343,376
	East	18.4%	29.0%	10.3%	15.4%	71.3%	55.7%	11.7%	32.1%	7,122	136,890
2001	Germany	33.6%	46.0%	2.7%	7.2%	63.7%	46.7%	14.9%	41.7%	30,049	528,762
	West	35.2%	48.4%	1.4%	6.2%	63.4%	45.4%	13.8%	44.2%	21,345	409,982
	East	29.7%	37.8%	5.9%	10.8%	64.3%	51.4%	17.5%	33.0%	8,703	118,780
2002	Germany	48.7%	53.7%	2.2%	6.9%	49.1%	39.4%	14.0%	39.3%	38,510	618,349
	West	53.9%	60.9%	0.9%	3.1%	45.2%	36.1%	13.7%	38.3%	29,910	478,306
	East	30.6%	29.4%	6.8%	19.9%	62.6%	50.7%	15.2%	42.9%	8,601	140,043
2003	Germany	51.0%	57.7%	1.5%	5.9%	47.5%	36.4%	14.2%	41.9%	28,758	494,991
	West	55.8%	62.6%	1.1%	5.9%	43.1%	31.6%	13.9%	42.9%	23,185	407,077
	East	31.2%	35.3%	2.9%	6.3%	65.9%	58.4%	15.5%	37.5%	5,574	87,914
2004	Germany	51.0%	52.7%	1.0%	11.0%	48.1%	36.4%	8.9%	37.6%	29,903	512,595
	West	54.3%	57.3%	0.7%	7.7%	45.1%	35.0%	8.5%	37.1%	24,748	419,193
	East	35.1%	31.9%	2.6%	25.5%	62.4%	42.6%	10.6%	40.1%	5,155	93,402
2005	Germany	38.9%	42.4%	6.1%	12.8%	55.1%	44.8%	11.7%	33.7%	31,658	472,637
	West	42.9%	45.6%	6.8%	13.8%	50.3%	40.7%	12.4%	34.8%	26,819	393,365
	East	16.6%	26.4%	1.9%	8.0%	81.5%	65.6%	7.5%	28.2%	4,839	79,272
2006	Germany	41.6%	47.9%	3.6%	5.6%	54.8%	46.5%	11.9%	36.8%	26,590	427,300
	West	44.0%	49.6%	2.9%	4.5%	53.0%	45.8%	13.0%	37.5%	22,356	348,115
	East	28.6%	40.3%	7.4%	10.4%	64.0%	49.3%	6.2%	34.1%	4,234	79,185
2007	Germany	32.9%	38.6%	0.9%	6.6%	66.1%	54.8%	9.2%	29.8%	24,278	429,057
	West	37.4%	40.2%	0.6%	7.0%	62.0%	52.9%	10.4%	30.7%	19,549	353,197
	East	14.6%	31.2%	2.2%	5.0%	83.3%	63.8%	4.2%	25.6%	4,729	75,860
2008	Germany	23.5%	39.2%	2.3%	6.9%	74.2%	53.8%	7.8%	28.4%	28,381	405,561
	West	24.5%	39.4%	2.4%	6.8%	73.1%	53.7%	7.9%	28.1%	24,236	337,808
	East	17.4%	38.3%	1.9%	7.4%	80.7%	54.3%	6.9%	29.7%	4,144	67,753

Note: Closing/failing establishments correspond to the sum of groups 6, 9, and 12 in Table 1. I denotes the proportion of establishments; II denotes the proportion of employees.

FIGURE 1
 Collective Bargaining and Works Council Coverage by Establishment for Germany and by Broad Region, 2000-2008 (establishments with at least 5 employees, cross-section weighted data)

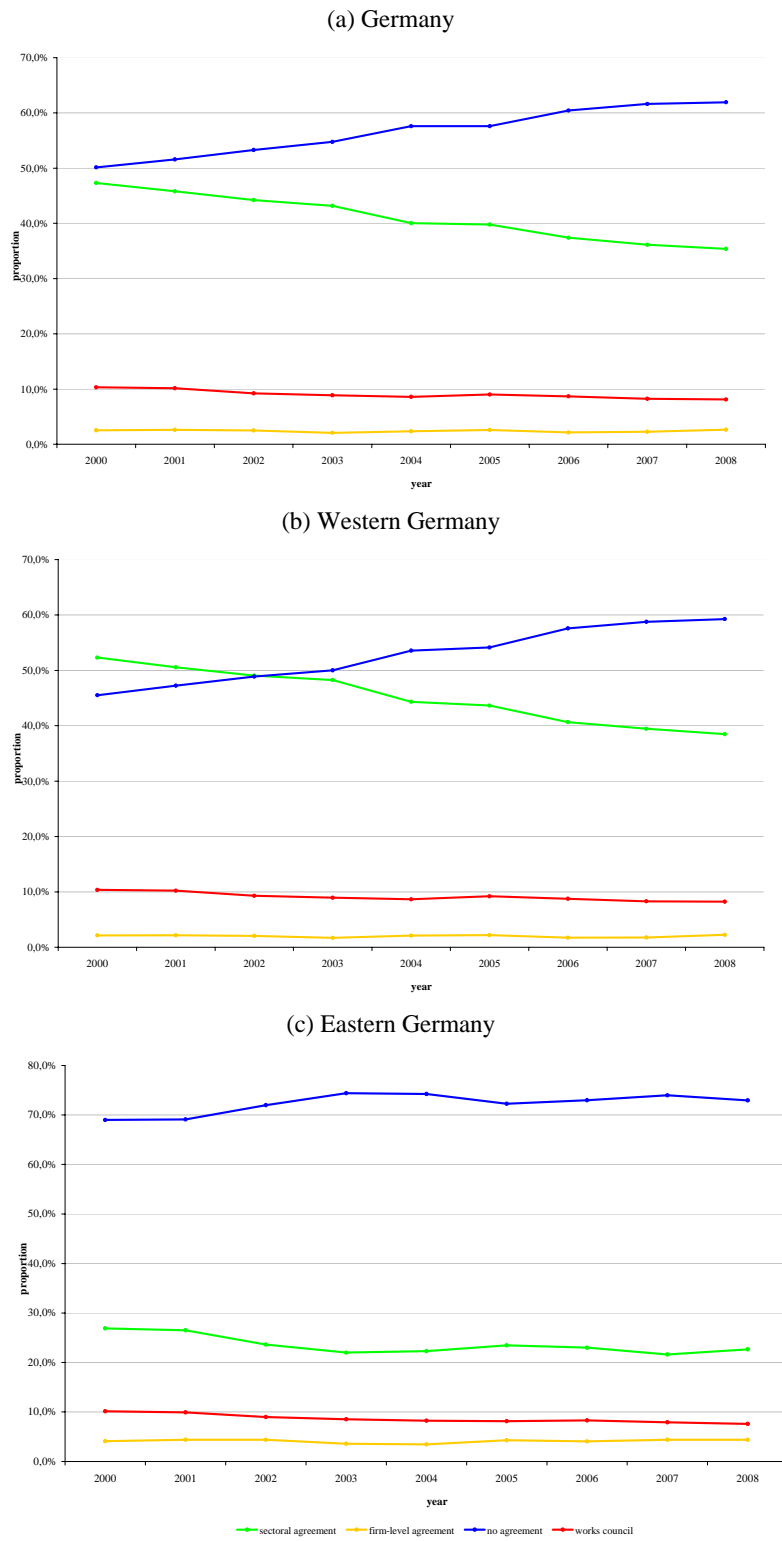


FIGURE 2
 Collective Bargaining and Works Council Coverage by Employment for Germany and by Broad Region, 2000-2008 (establishments with at least 5 employees, cross-section weighted data)

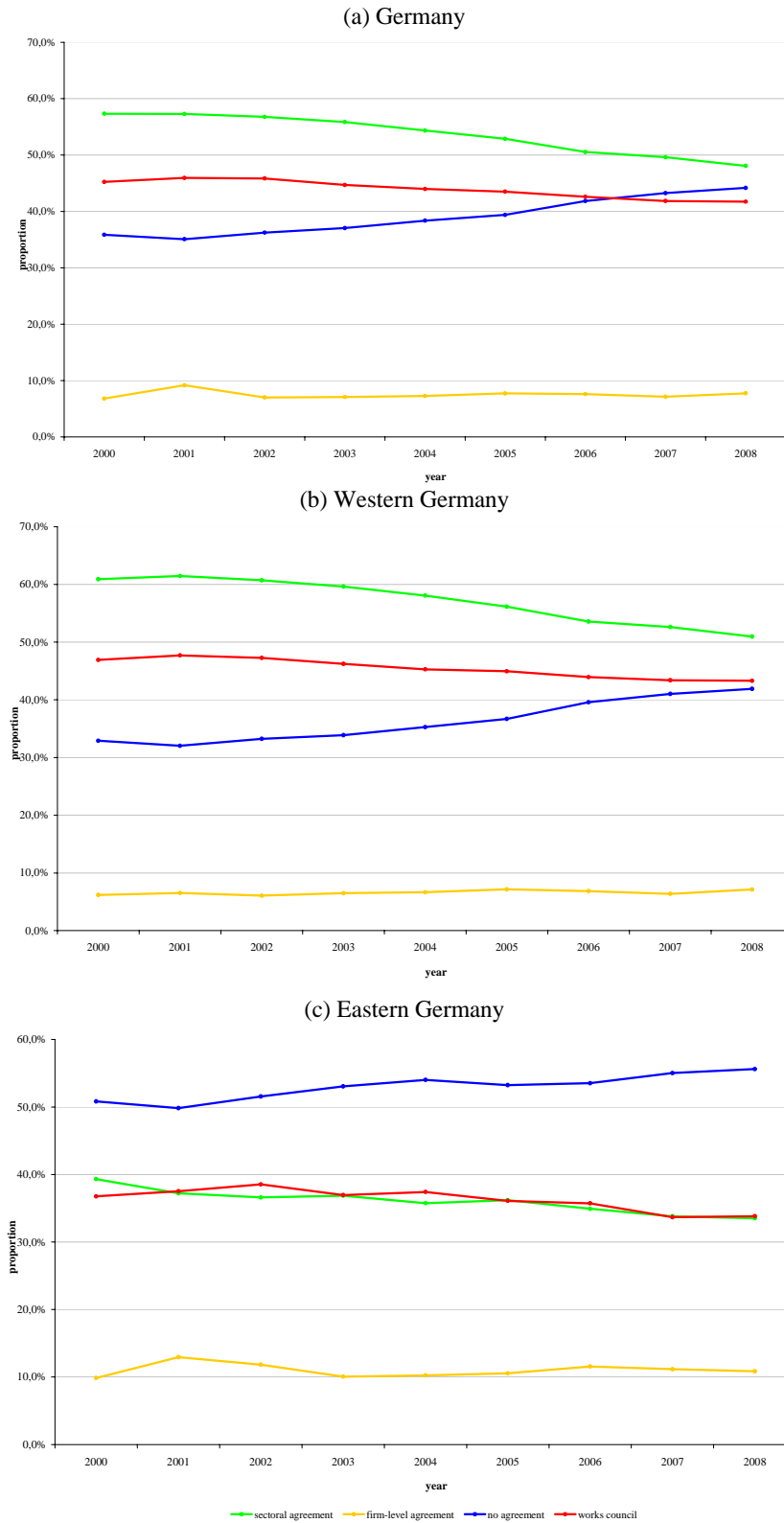


FIGURE 3
 Collective Bargaining and Works Council Coverage by Establishment for Germany and by Broad Region,
 Permanent Stayers, 2000-2008 (establishments with at least 5 employees, cross-section weighted data)

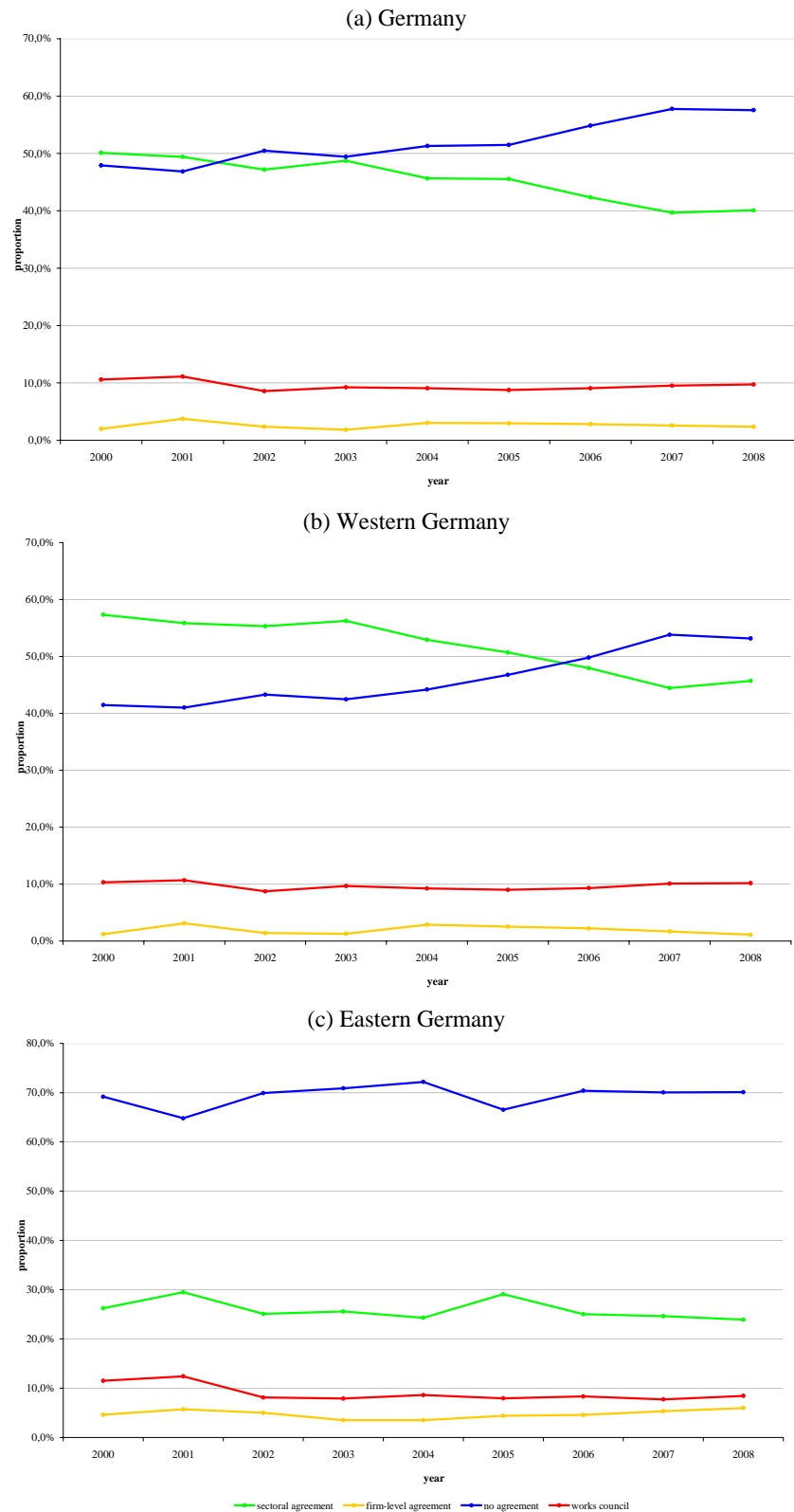
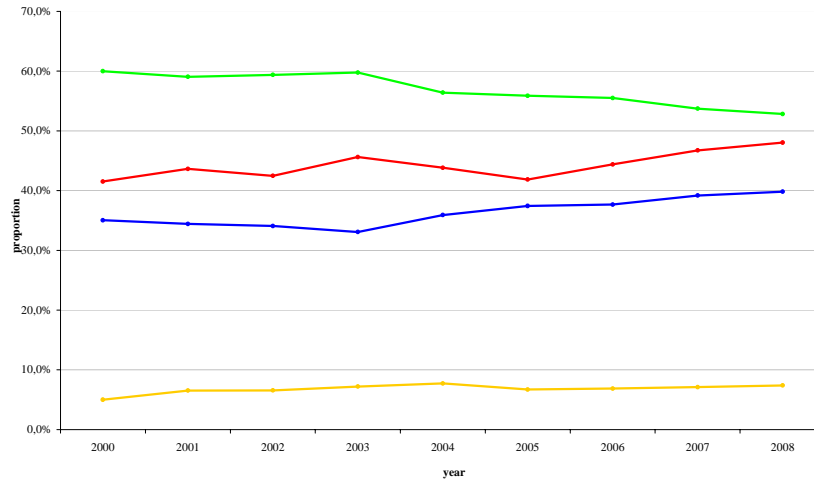
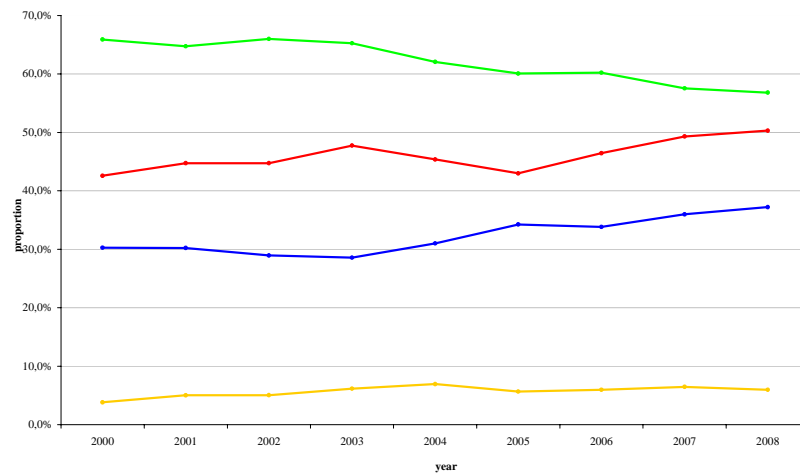


FIGURE 4
 Collective Bargaining and Works Council Coverage by Employment for Germany and by Broad Region,
 Permanent Stayers, 2000-2008 (establishments with at least 5 employees, cross-section weighted data)

(a) Germany



(b) Western Germany



(c) Eastern Germany

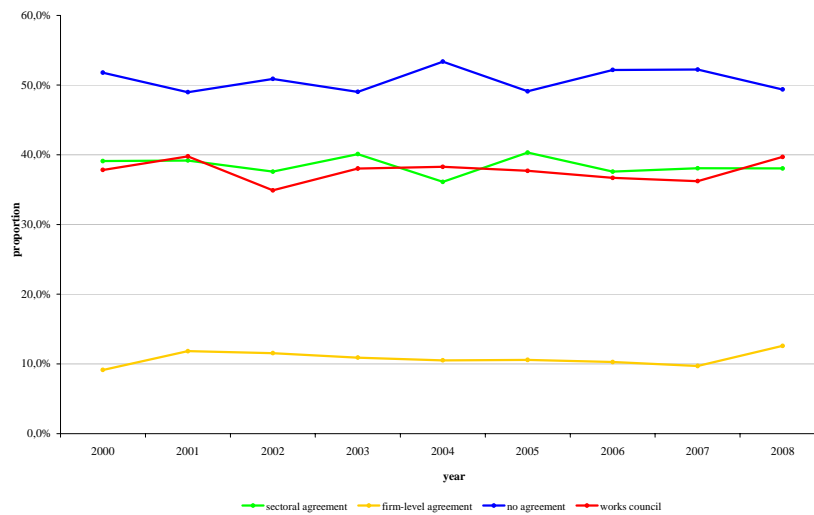


FIGURE 5
Collective Bargaining and Works Council Coverage by Establishment and Employment in Newly-Founded Establishments (i.e. Births), Germany, 2000-2008 (establishments with at least 5 employees, cross-section weighted data)

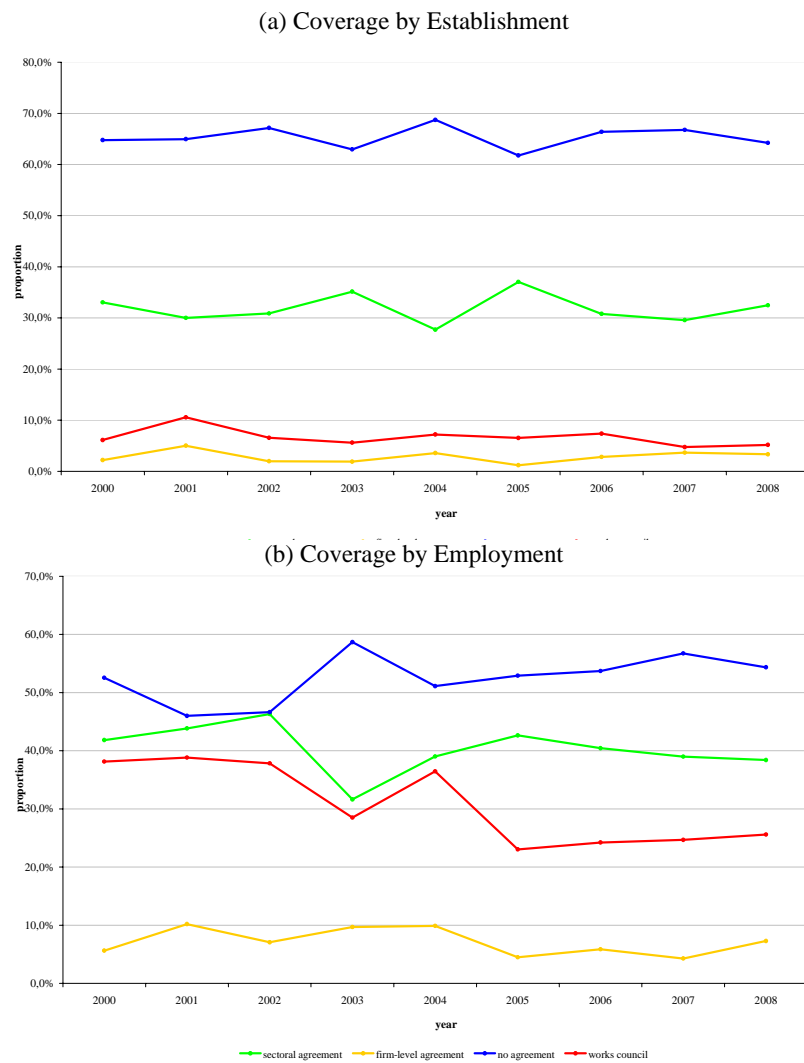


FIGURE 6
 Collective Bargaining and Works Council Coverage by Establishment and Employment Among Closing Establishments (i.e. Deaths), Germany, 2000-2008 (establishments with at least 5 employees, cross-section weighted data)

