Market Expectations and Mangerial Turnover

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Introduction

Literature

CEO Turnover and Firm Performance

A robust body of research demonstrates a negative correlation between poor organizational performance and involuntary CEO dismissal (DeFond and Park (1999)). Both stock returns and accounting metrics indicate that failing to achieve performance benchmarks raises turnover probability, though the magnitude of effects prove statistically significant yet substantively minimal across analyses (Gibbons and Murphy 1990; Farrell and Whidbee 2003).

Building on seminal insights by March and Simon (1958) and Cyert and March (1963), subsequent scholarship illuminates how boards of directors explore solutions and prompt managerial changes when results underperform expectations. Managers able to realise forecasted outputs appear less susceptible to replacement than those unable to reach projected thresholds, irrespective of analogous absolute performance (Bandura and Jourden 1991; Haleblian and Rajagopalan 2006). Boards frequently assess leaders against firm-specific expectations, benchmarking actual versus anticipated outcomes and attributing divergence to the CEO (Greve 1998; DeFond and Park 1999; Wiersema and Zhang 2011). As proxies for performance expectations, earnings forecasts strongly predict turnover likelihood, though also capture managerial efforts toward systematic issue management (**ieper2014performance?**)

Strategic Expectations Management

Endogeneity concerns thus emerge, as information asymmetries afford CEOs latitude to strategically time media announcements and influence external stakeholder interpretations (Westphal and Graebner 2010; Westphal and Deephouse 2011). Similarly, football managers degrade expectations through injury pronouncements and other excuses that deflect responsibility. Evidence remains limited regarding precise managerial tactics shaping performance benchmarks (Pieper, Nüesch, and Franck 2014). Some research proposes that higher expectations decrease capital costs and increase share prices (Francis and Soffer 1997), while other studies indicate systematic "expectation management" wherein CEOs restrict forecast escalation (Bartov, Givoly, and Hayn 2002; Goyal and Park 2002). This restraint purportedly reduces involuntary turnover incidence.

The majority of empirical literature upholds poor performance as the primary antecedent of managerial replacement (Groves et al. 1995; Hudson, Malatesta, and Parrino 2004). Though post-succession improvements appear frequently observed, findings regarding causal impacts on organizational outcomes remain mixed (Cools and Praag 2003). Difficulties persist in identifying relevant temporal lags and indicators within corporate performance-turnover analyses.

Parallels in Sport

In drawing parallels with corporate leadership, football managers constitute integral strategic and operational decision-makers whose choices shape competitiveness and results (Pieper, Nüesch, and Franck 2014). While factors like injuries constrain agency, negative performance often escalates dismissal odds given close linkages between the managerial role and team outputs (Hoffler and Sliwka 2003). Contemporary scholarship utilizing bookmaker odds reveals that failure to achieve expected sporting outcomes precipitates coaching turnover (Pieper, Nüesch, and Franck 2014; Ours and Tuijl 2016; Bruinshoofd and Weel 2003).

In a rare longitudinal approach, Bachan, Reilly, and Witt (2005) model seasonal hazard rates, determining league position overrides individual attributes in predicting managerial survival. Yet other analyses of match outcomes bypass control group issues while accounting for difficulty variances. Koning (2003) and Forrest and Simmons (2000) find sporadic evidence that replacement temporarily boosts performance. But several studies propose frequent "scapegoating" wherein termination aims to appease stakeholders rather than improve competition, with managerial change reliably hampering short-term results (Koning 2003; Dobson and Goddard 2011; Audas, Dobson, and Goddard 2002).

Tena and Forrest (2007) importantly highlight financial relegation risks and failing historical powers as motivational factors. While the former escalates turnover incidence, the latter proves insignificant as inferior clubs primarily dismissed coaches. Ultimately, teams appear to utilize termination following perceived underperformance relative to expectations shaped by factors like salary budgets.

Data

Manager spell

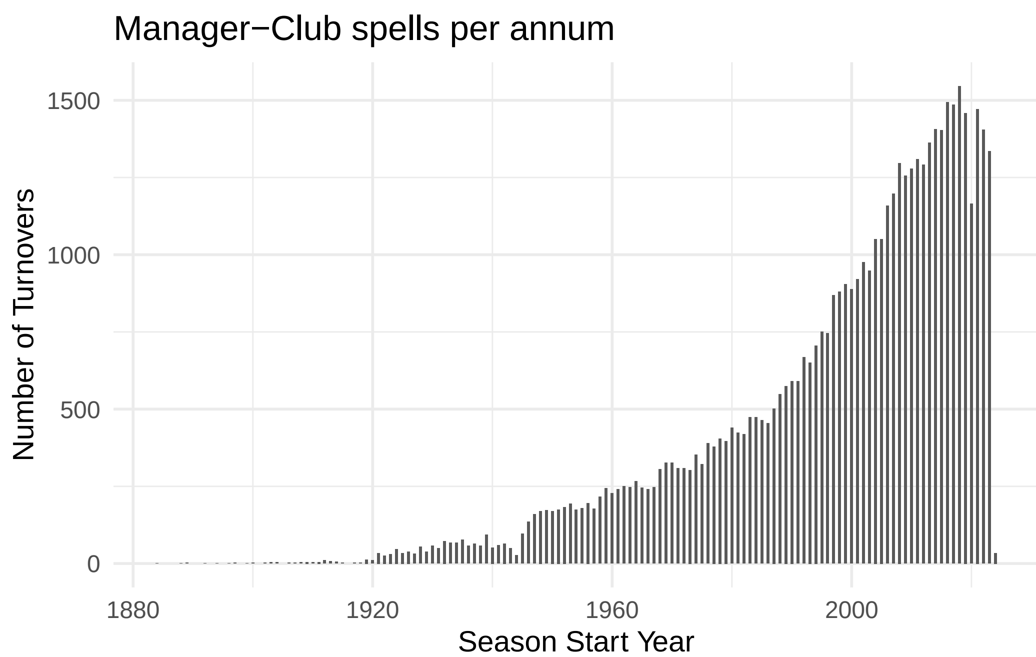
We build a hand-craft database on the complete manager turnover profiles of all professional football managers across 11 European leagues for 23 playing seasons up to 2023-2024. We use three sources 1. league of managers association a body representing professional managers in English football. 2. Soccer base a betting website 3. Transfermkt website a large website which records manager, player and team profiles as well as a large array of analytics of the valuation of playing staff. The raw data is gathered using a series of web scrapping algorithms.

Our primary source of information is Transfermkt, but we use other sources to validate these manager spells.

The raw data from transfrmarkt is then cleaned and processed to create a raw dataset of manager spells. The dataset contains the following columns:

- `name`: The name of of staff member
- `club`: The club of the staff member
- `position`: The position of the staff member
- `appointed`: The start date of the spell
- `contract_expiry`: The end date of the spell
- `days_in_charge`: The number of days the manager was in charge of the club
- `wins`: Number of wins for spell
- `draws`: Number of draws for spell
- `losses`: Number of losses for spell
- `players_used`: Number of players used in the spell
- `avg_goals_for`: Average goals scored per game
- `avg_goals_against`: Average goals conceded per game
- `ppm`: Points per match

Staff Role	Number
manager	58981
assistant manager	11282
caretaker manager	3209
academy manager	1368
scout	691
player-coach	680
goalkeeping coach	630
director of football	574
sporting director	514
youth coach	479
technical director	440
fitness coach	239
chief scout	223
technical coach	219
advisor	200
head of academy coaching	196
director of youth department	122
team manager	119
board member	78
president	78



Methodology

A primary objective when modeling panel data grouped by country, sports leagues, seasons or other categories is allowing for and assessing systematic differences in effects across groups. Standard panel data techniques like fixed effects or random effects models enable some degree of heterogeneity by permitting intercept variation across groups Greene (2003). However, these approaches constrain slope coefficients and error variances to be constant. This could overlook meaningful group-level distributions in parameters beyond intercepts.

Hierarchical Bayesian (HB) models instead provide a cohesive framework for directly specifying group-level distributions for any parameters that may logically vary across categories Gelman et al. (2013). Hierarchical Bayesian (HB) models allow both individual and group-level estimates through partial pooling across the model hierarchy. The group-level distributions essentially serve as priors that regularize or shrink the extreme individual-level parameter estimates towards the group mean. At the same time, the group-level estimates themselves are still informed by and capture the cohort and contextual influences from the individual data.

So partial pooling provides a balanced trade-off - it shrinks less stable individual estimates to avoid overfitting, while still allowing the group distributions to represent meaningful variation across cohorts, contexts or other structures in the data. The key idea is that partial pooling up the hierarchy uses the group-level distributions to stabilize and strengthen estimates, while retaining the ability to capture subgroup patterns.

Moreover, HB models facilitate incorporating complex covariance patterns and nonlinear relationships in parameters across groups. Zhang, Russell, and Hassani-Mahmooei (2021) uses Bayesian cross-classified multilevel analysis to model subtle temporal and group-level interactions in voter turnout - difficult to formulate through panel data methods.

In summary, HB techniques yield a unified modeling approach to characterize inter-group parameter variation. The methodology subsumes traditional panel data econometrics through its flexibility while addressing limitations. The formal probability structure also regulates instability and provides natural group-level effect quantification - particularly critical when data within clusters is sparse. This establishes hierarchical Bayesian modeling as a powerful tool for econometric grouped data analyses.

Model Specification

The models are:

1. **HB Logit Model**

$$P(\text{Poached}_i = 1|\text{Points}_i, \text{RSI}_i) = \text{logit}^{-1}(\alpha_{l[i]} + \beta_{1,l[i]}\text{Points}_i + \beta_{2,l[i]}\text{RSI}_i + \epsilon_i)$$

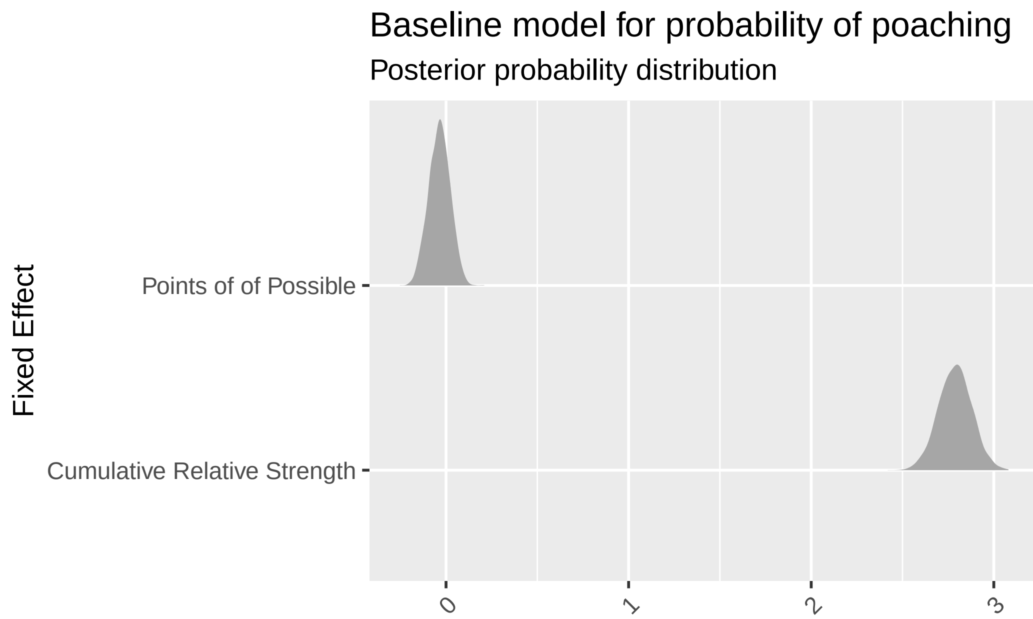
2. **HB Proportional Hazard Model**

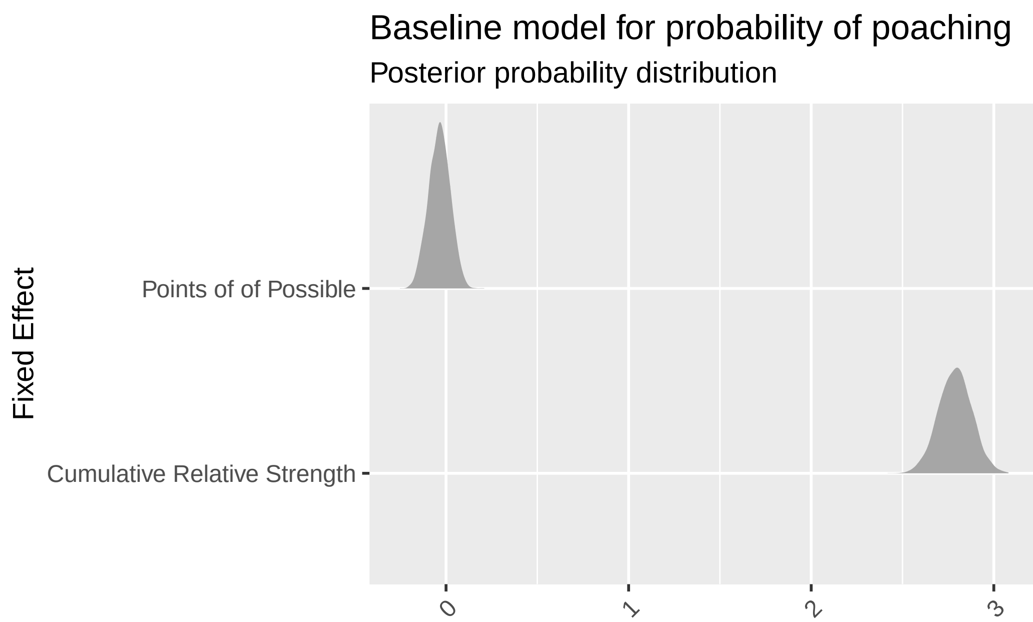
$$h(t|X_i) = h_0(t)\exp(\alpha_{l[i]} + \beta_{1,l[i]}\text{Points}_i + \beta_{2,l[i]}\text{RSI}_i)$$

The t is the time to hazard in games in charges. The subscript $l[i]$ allows coefficient variation across groups. We investigate hierarchies across season, country and country-tier. Hierarchical priors on α, β parameters share data to obtain better estimates, even for new leagues or clubs.

Results

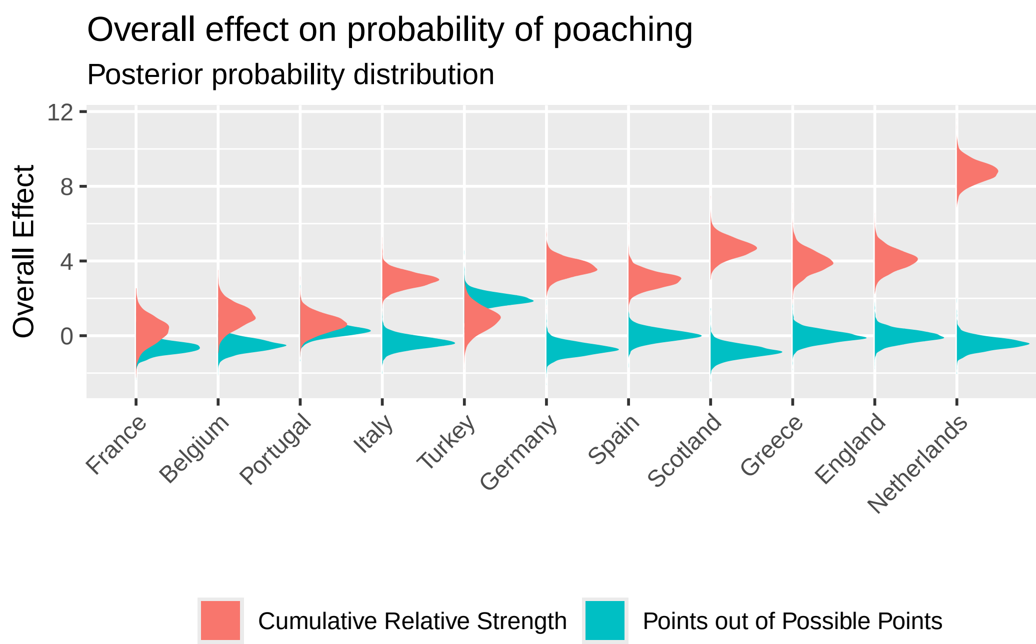
Baseline logit model

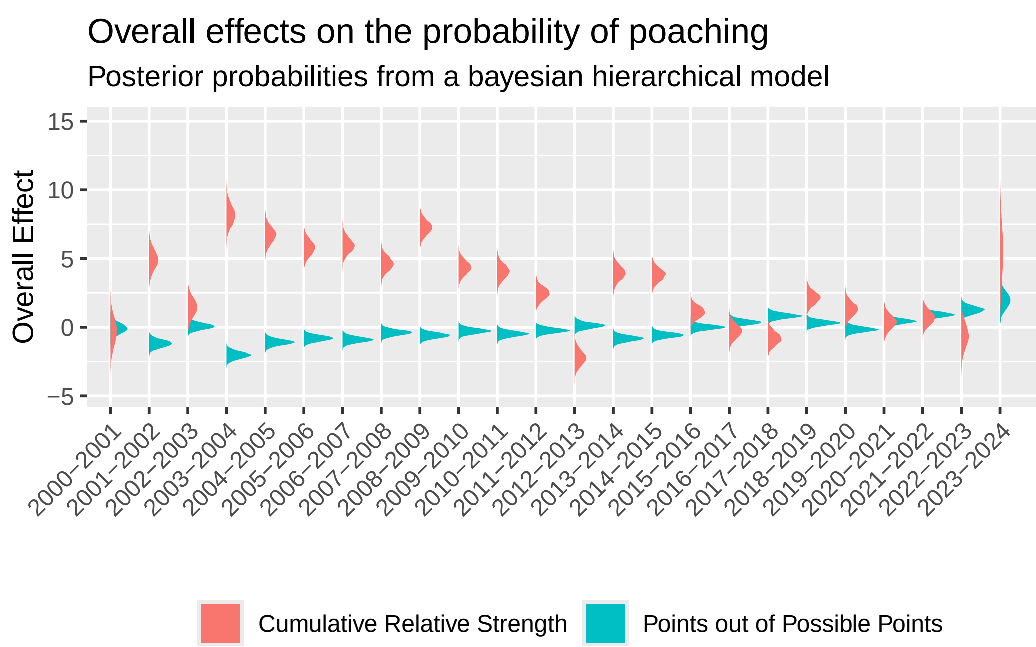


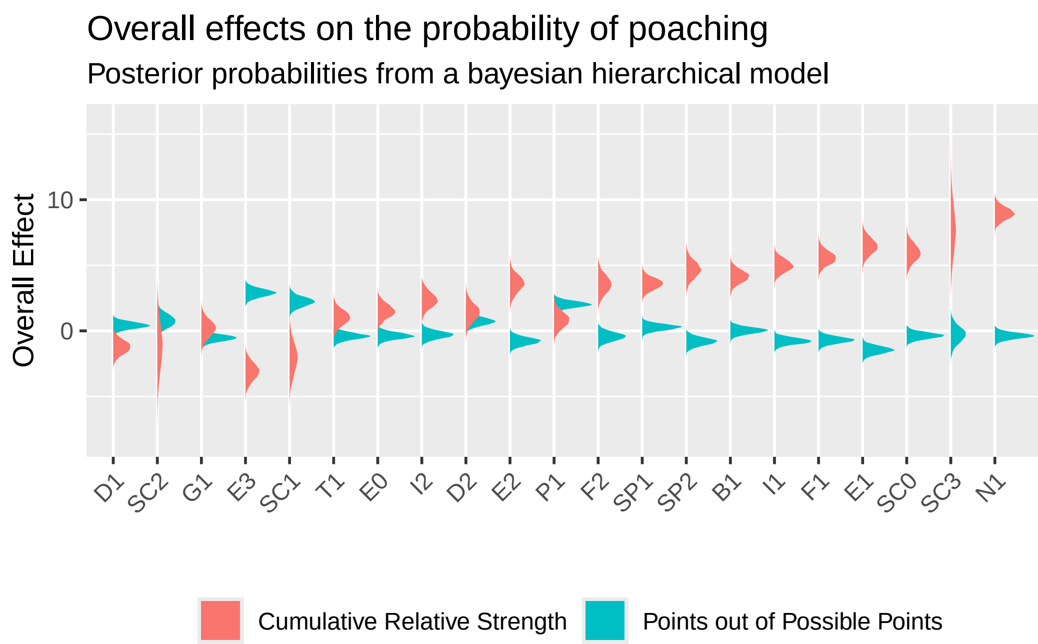


Baseline hazard model

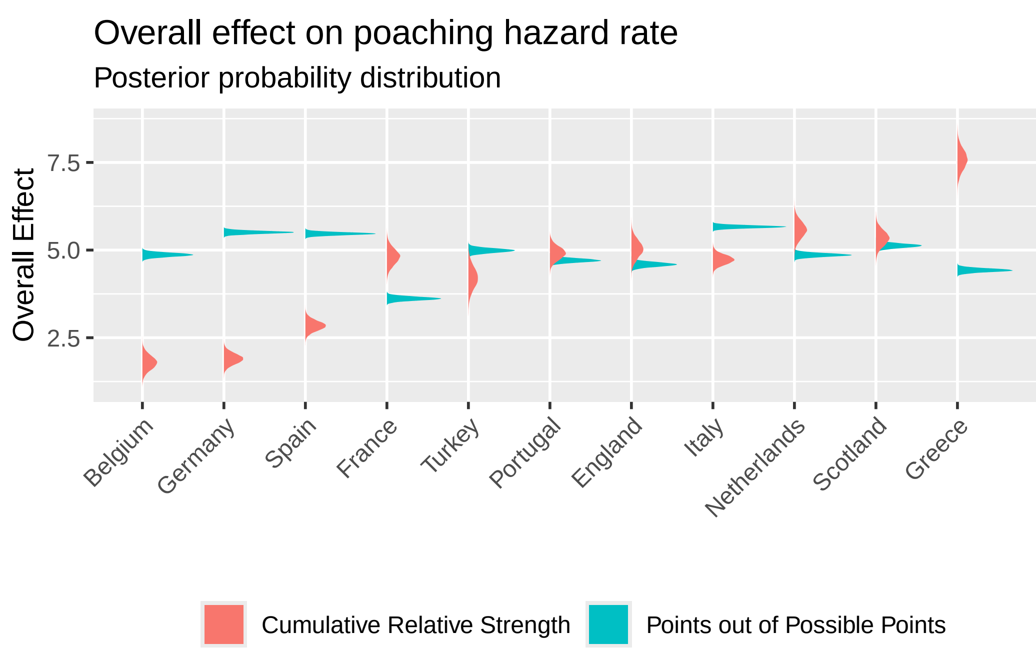
group level logit models

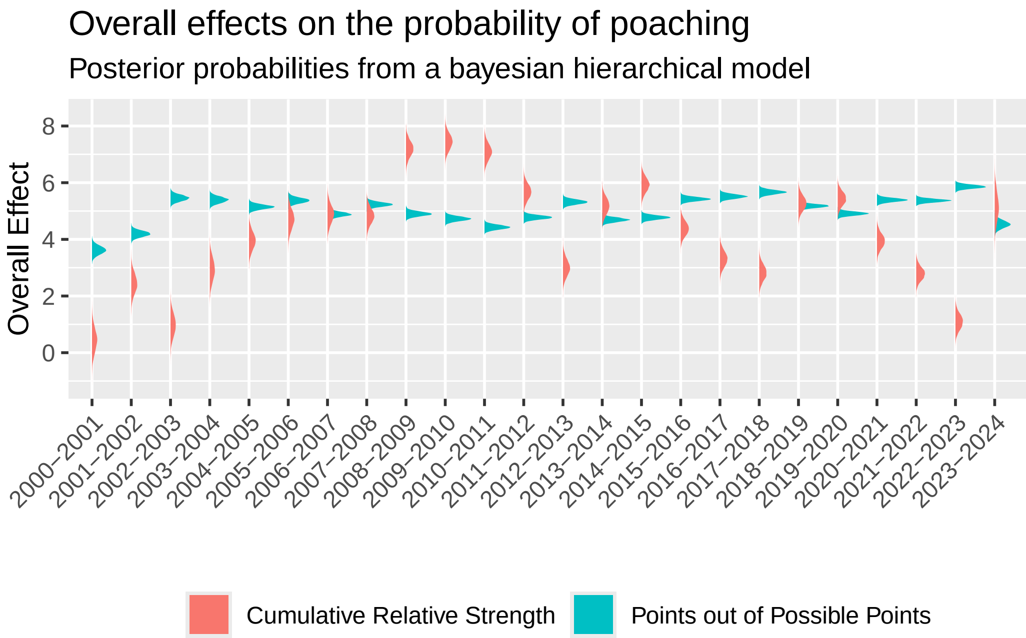


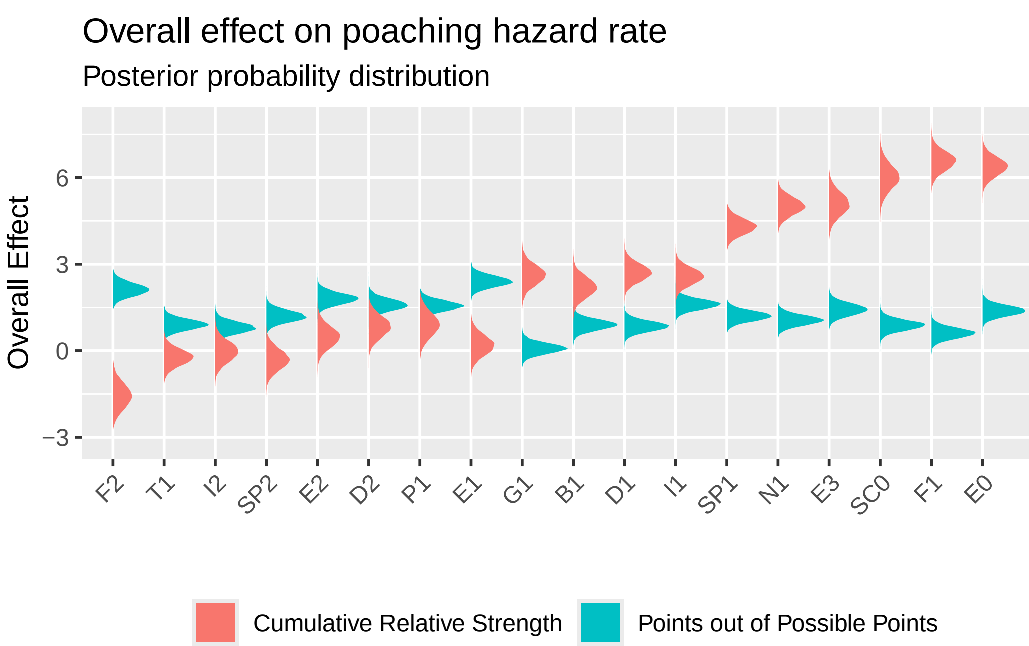




group level hazard models







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