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An Empirical Analysis of Sentencing Starting Points for HSE Offences

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Abstract: This paper first reviews the attitude towards starting points for the sentence of fines (i) for the period following the 1994 guideline judgment in *De Spa* and prior to the commencement of the Sentencing Act 2002, and (ii) for the period following the implementation of both the Sentencing Act 2002 and the HSE Amendment Act 2002 and prior to the 2008 guideline judgment in *Hanham & Philp*. We then empirically examine both mean starting points for fines and variability in starting points for the second of these periods, and also empirically examine the determinants of the use of starting points. Finally, we empirically examine the determinants of starting points and actual fines for those cases sentenced after *Hanham & Philp* through to 7 March 2012, and compare the results obtained. Following *Hanham & Philp* when starting points became mandatory, their amounts were strongly monotonically related to the degree of culpability and the previously found direct effect of the degree of harm seemed largely irrelevant. These results carry over to fines imposed. We also found greater consistency both for starting points and for actual fines. We found, however, greater variability in actual fines than in starting points post *Hanham & Philp* reflecting the role of idiosyncratic case characteristics. Also, starting points used voluntarily prior to *Hanham & Philp* were more variable than starting points set post *Hanham & Philp*.

Keywords: Health and safety in employment sentencing; starting points for fines.

JEL Classifications: K32

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I. Introduction.

This article analyses the evolution of starting points for the sentence of a fine in respect of District Court (DC) convictions for offences under New Zealand's Health and Safety in Employment Act (HSE Act) 1992. We first examine the attitude towards starting points expressed in the early influential guideline judgment of the Full Bench of the High Court (HC) in *Department of Labour v De Spa and Co Ltd* [1994] 1 ERNZ 339 and which was effectively maintained until the second major guideline judgment was established in *Department of Labour v Hanham & Philp Contractors Ltd & Ors* [2008] 6 NZELR 79. This latter judgment established three broad ranges of starting points for fines depending on an employer's culpability, marking a fundamental shift from previous practice where judges' use of starting points was voluntary.

We review the evolution of the attitude towards starting points (i) for the period following the guideline judgment in *De Spa* and prior to the commencement of the Sentencing Act 2002, and (ii) for the period following the implementation of both the Sentencing Act 2002 and the HSE Amendment Act 2002 and prior to *Hanham & Philp*. We then empirically examine both mean starting points for fines and variability in starting points (including stratifying by culpability levels) for the second of the above two periods. For this period, we also empirically examine the determinants of the use of starting points (i.e., which cases had them and which did not). Finally, we empirically examine the determinants of starting points for those cases sentenced subsequent to the judgment in *Hanham & Philp* through to 7 March 2012, and compare the results obtained with a similar exercise in respect of the determinants of fines actually imposed in these third period cases.

II. The Changing Role of HSE Sentencing Starting Points.

In this section, we review the evolution of starting points for fines for HSE offences for the three separate periods outlined above.

Period 1: (23 March 1994 - 1 July 2002)

De Spa involved a successful appeal against the level of sentence imposed in the Christchurch District Court in respect of a fatal accident to a young employee.[1] A Full Bench of the High Court found that the fine of $6,500 imposed was manifestly inadequate and increased it on appeal by some 136%. No starting point, however, was adopted by the High Court. In reviewing sentencing principles, nine relevant sentencing factors were specified and assessed in determining the raised fine. The *De Spa* Guidelines became a major reference point for subsequent HSE sentencing decisions, and were later incorporated in the HSE Amendment Act without significant change.[2]

The major argument advanced by the appellant in favour of a significantly increased fine was the increase in maximum penalties included in the HSE Act. Generally, the maximum penalty had increased ten-fold and the appellant argued that the District Court (DC) Judge should have chosen his starting point at a level some three times higher. The HC Judges, however, seemed unimpressed with such quantitative comparisons. At two separate points they denied that sentencing was a "mathematical exercise," and considered starting points (which were not mandatory in period 1) to be potentially misleading in the context. In their view, the sole merit of a starting point in HSE sentencing was to indicate the magnitude of any discount for a plea of guilty. While the proportionate increase in maximum fines was seen to be relevant, the magnitude of the change was not seen as being critical. Their Honours also argued that the signal sent by the legislature merely included Parliament's view that broad levels of penalty being imposed were inadequate. Further, although deterrence was a relevant question, it was only one among a number of variables determining appropriate fine levels.

While the HC Judges stopped short of finding sentencing starting points entirely without merit, their use in the HSE sentencing process was viewed as being highly limited and received little by way of endorsement.

Period 2: (5 May 2003 - 18 December 2008)

In the first decade of the application of the HSE Act 1992, the maximum fine that could be imposed for the common s 50 offences involving non-compliance with various provisions of the Act was $50,000. Subsequently, a strong signal to the Courts to significantly increase penalties was provided

1. Cf. *Department of Labour v de Spa and Co Ltd* DC Christchurch, CRN 30090213/93, 8 October 1993, (Holderness, J).
2. Hall (2009 at [I.2.2(c)]) argued that little attempt is made in NZ guideline judgments to analyse, categorize and weigh the factors influencing sentence, with what is seen to be relevant sentencing factors merely being identified. In this respect, *De Spa* is typical. No indication of whether these factors are listed in any particular order of importance is given, nor whether different weights should be applied to the different criteria.

by a fivefold increase in maximum penalties in the amendments of 2002 which were implemented on 5 May 2003.[3]

The Sentencing Act repealed s 28 of the Criminal Justice Act 1985 which had permitted the payment of all or part of any fine to a victim of an offence. A new sentence of reparation that could be awarded when a victim suffered loss or damage to property, emotional harm, or loss or damage consequential on any emotional or physical harm or loss of, or damage to, property, was introduced. Courts were generally required to impose a sentence of reparation where applicable, and reparation awards were not capped. Reparation was to take precedence over fines for offenders with limited financial capacity, and, if reparation was ordered, the Court was to take its magnitude into account in assessing the level of any fine imposed.

These legislative changes did little to change the status of sentencing starting points which remained permitted, but not mandatory. Unlike in period 1, however, much more information is available on whether DC Judges adopted starting points during period 2. The use of starting points was not uncommon during this period. For example, we identified starting points in 25% of successfully prosecuted s 6 offences during this period, and there may have been others that we could not identify due to our lack of access to all relevant judicial decisions or sentencing notes.

Whether or not starting points were set in period 2, however, ongoing tension between the (then) Department of Labour[4] (DoL, as Informant) and DC Judges at large was evident, particularly in regards to the widely-accepted practice of dollar-for-dollar discounting of fines by reparation awards. The effect was seen as frequently reducing fines to almost trivial levels.[5] According to Hughes in a comment on his casenote on *Hanham & Philp*, over a five year period DC Judges had chosen not to substantially increase the level of fines until the HC provided suitable structured guidance.[6]

Period 3: (18 December 2008 - 7 March 2012)

The Full Bench HC judgment in *Hanham & Philp* dramatically changed the situation in respect of the interpretation of "accounting for reparations" required by s 40 Sentencing Act 2002 when setting fines for HSE offences. As appellant, the main submission of the Department of Labour was

3. Hall (2009 at [I.1.1]) argued that maximum penalties are reserved for the most serious offences of their type and offer little guidance to sentencing judges, and also noted (at [I.1.4]) that the statutory language of the Sentencing Act "is frequently expressed in such general terms that it does not place any substantial fetter upon the sentencing discretion."
4. Now embodied in the Ministry of Business, Innovation and Employment (MOBIE) on 1 July 2012.
5. See, for example, Gordon and Woodfield (2006), Mason (2008), Clark (2008).
6. Cf., Hughes (2009).

that the fines imposed at District Court level in the three sentences appealed were manifestly inadequate and failed to reflect the five-fold increase in the maximum fine for s 50 offences enacted in the amended HSE Act. Evidence showing that 90% of total financial liabilities since May 2003 had not exceeded $50,000 (just 20% of the maximum fine alone) was accepted by the Court. It was also argued that it was timely to review the sentencing principles embodied in *De Spa*. The Court duly obliged, emphasizing the distinct statutory purposes of reparations and fines in line with DoL's submissions and arguing that each required independent attention in the sentencing process. In comparison to the previous two-step approach to sentencing,[7] the High Court preferred an approach involving a third step along with a more systematic and transparent approach to setting the level of fines, and considered that in order to meet the prime objective of the HSE Act, viz, the prevention of workplace harms, sentencing would generally require sufficient weight being given to the purposes of denunciation, deterrence, and accountability for harms done in terms of s 7 Sentencing Act.

The Court considered that the logical first step would continue to fix the amount of reparation. The second step would fix the amount of the fine following the approach in *R v Taueki* [2005] 3 NZLR 372. This required a starting point to be adopted based on the circumstances of the offending and adjusted for the offender's financial situation, any amends made, and relevant aggravating or mitigating factors considered.[8] Further, and in contrast with prior practice, the Court argued that the process of determining the amount of fine should be carried out independently of any reparation order made. Thus (at [47]), if an employer has adequate financial capability, "… the imposition of a fine in addition to reparation will generally be required to address the separate statutory purposes of denunciation, deterrence (both general and specific) and holding the offender accountable for the harm done." The Court, however, rejected an eighteen category hierarchy of starting points proposed by DoL and opted instead for three broad categories based solely on the level of the offender's culpability.

The Court identified (at [54]) a set of seven criteria for assessing culpability (i.e., blameworthiness), including, *inter alia*, "an assessment of the nature and seriousness of the risk of harm occurring as well as the realized risk", and "the current state of knowledge of the risks and of the nature and severity of the harm which could result" as factors included in the assessment of culpability. At [57], after arguing that "a broad assessment is involved" and stating their agreement

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7. Cf., *Department of Labour v Ferrier Woolscours (Canterbury) Ltd* [2005] DCR 356.

8. The HC argued that DC HSE cases had not been following *Taueki* although the HC had done so in *Department of Labour v Street Smart Ltd* (2008) 5 NZELR 587 and *The Supply Chain Ltd v Department of Labour* (High Court, Auckland CRI 2008-404-124, 29 September 2008, Duffy J).

with the view in *De Spa* that sentencing "is not a mathematical exercise," the Court set starting points according to the following scale: for low culpability, a fine not exceeding $50,000; for medium culpability, a fine between $50,000 and $100,000; for high culpability, a fine between $100,000 and $175,000 (although higher starting points might be required in cases of "extremely high" culpability).[9] Finally, the Court included a third step, suggesting that judges should consider whether the resulting total financial liability – composed of reparation and fine set at steps 1 and 2, respectively - is proportionate to the circumstances of the offending and the offender.

The Court clearly supported a substantial increase in the level of fines and explicitly rejected the practice of dollar-for-dollar discounting of fines that would have been imposed in the absence of reparation awards except in the case where offenders had a demonstrably limited financial capacity.[10] It was argued that an increase in the level of fines was necessary in order to reflect the five-fold increase in the maximum fine to account for inflation and the need for deterrence in light of the ongoing costs and the serious nature of workplace accidents. In general, ss 8(c) and 8(d) Sentencing Act require penalties to be set at or close to the maximum for the most serious offending and District Court Judges had typically failed to come close to meeting this statutory requirement.

The High Court, however, continued to encourage the exercise of judicial discretion in that [at 60] "Tailoring to the individual circumstances of the case remains essential, as is the need to avoid undue hardship". This left the issue of precisely what "taking into account" the amount of reparation ordered (or amends made) meant when setting fines somewhat unclear. At [69], however, and without wishing to set a precise range, the Court suggested that "a discount of up to 10 to 15% in the level of the fine is reasonable to recognize the order for reparation in the case of an offender of adequate means." If such an offender was insured against reparation orders, the Court argued (at [74]) that "some modest allowance may be justified to recognize the employer's responsible approach in securing insurance cover to provide for injured employees but we would see this as sufficiently allowed for in the discount of 10% to 15% already discussed at [69]." The major payoff of insurance to an employer, however, is reduced liability for accident harms.

9. These three broad categories not only contrast sharply with the eighteen categories recommended by DoL but even more sharply with the much finer approach adopted in 1987 in the United States' criminal Federal Sentencing Guidelines, involving a grid of 258 boxes in a Sentencing Table based only on a criminal's past record and offence severity. As a consequence, in HSE cases, NZ judges are still permitted considerable latitude for judicial sentencing variation. In our empirical analysis, however, we felt comfortable assigning assessed culpability in terms of five ranges (including three sub-ranges of the "Medium" category) rather than the three broad ranges chosen by the *Hanham & Philp* Judges.

10. This discounting would presumably have had little impact on the fines that would otherwise have been set if reparation awards had been relatively small in magnitude. As it transpired, reparation awards were not trivial. Between 5 May 2003 and 18 December 2008, reparation awards were made in 93% of successfully prosecuted cases and averaged $15,065.

Applauding employers for carrying insurance possibly relates to ensuring that victims are compensated by the full amount of reparations awarded. In the absence of insurance, victims may not be fully compensated in the event of an employer's limited financial capability. Given the decision in *Department of Labour v Street Smart Ltd* (2008) 5 NZELR 587, however, so-called "responsible" employers are 'rewarded' by being less able to obtain discounted fines on the grounds of limited financial capability, and this approach is also followed in *Hanham & Philp*.

Regarding the three cases appealed, the Court (at [81]) noted a reluctance to increase rather than reduce sentences and would only increase a sentence if it were convinced that it had been manifestly inadequate. The sentence would also be increased by the minimum necessary to prevent it being continued to be so considered rather than increasing it to the level that the appellate court would have set had it been the original sentencing court. In its conclusions (at [164]), the Court noted that while their approach should generate greater consistency of starting points for fines, the fines imposed could easily show considerable variation since final results may be affected by financial capacity and/or reparation amounts (and also variations in mitigating and aggravating factors for that matter).[11] The decisions were as follows:

Hanham & Philp. A fine of $5,000 was quashed and a fine of $50,000 (an increase by a factor) was substituted once a starting point of $125,000 was reduced by 55% reflecting a number of substantial mitigating factors. The reparation order of $12,000 was unchallenged.

Cookie Time. A fine of $15,000 was quashed and substituted by a fine of $40,000 (i.e., an increase of 167%), which together with an unchallenged reparation order of $5,000 was held to be not disproportionate.

Black Reef Mine. The defendant's liability for $30,000 emotional harm reparation to the widow of a deceased worker was increased to $55,000 (i.e., nearly doubled), while the fine of $10,000 was doubled to $20,000. The Court noted that the fine would have been substantially higher (at $70,000) had the company not faced difficult financial circumstances.

III. Data.

To empirically analyse sentencing pre and post *Hanham & Philp*, we first hand-coded charge-level information provided by the (then) Department of Labour. The source database consists of a largely

11. According to Hall (2009 at [I.4.3]), judges need to preserve "a reasonable degree of uniformity of penalty between offenders convicted of the same offence at or about the same level of culpability." Hall also argued that sentences are meant to reflect the gravity of an offence, in part signalled by the size of the maximum penalty but also reflecting acts of commission and omission relevant to the facts of the particular case.

comprehensive list of successful prosecutions for HSE offences since the introduction of the HSE Act. Of particular use in this study, the database contains information on the amounts of any fines imposed, along with case decisions and sentencing notes where available. The Department was also very helpful in supplying us with copies of summaries of facts, judicial decisions, sentencing notes, and returns on prosecutions that were otherwise unavailable to us. In addition, the Safeguard CourtBase provided brief summaries of each accident and returns on prosecutions for post-2002 cases (however, only since 2004/5 did the returns on prosecutions begin to include information on the sentencing factors). Returns on prosecutions were very useful where no decision/sentencing note was available for a particular case.

In our empirical analysis, we initially focus on s 6 offences that are by far the most common. Section 6 of the HSE Act states that "Every employer shall take all practicable steps to ensure the safety of employees while at work" and section 2A of the HSE Amendment Act qualifies "all practicable steps" as "all reasonably practicable steps." As such, a s 6 offence is a relatively general offence. We examine s 6 offences in order to limit ourselves to a reasonably coherent set of charges for which similar sentencing criteria might be expected. We only examine charges for an injury, limit ourselves to DC cases, and study convictions without a discharge. The above restrictions leave us with 242 s 6 observations in period 2 and 123 in period 3. Out of those, 60 period 2 charges and 104 period 3 charges have starting point amounts available.

To examine how our model performs in multiple-charge and/or multiple-victim cases (including those without a s 6 offence), we also examine the aggregation of sentences to the case level. For each case, we aggregated all charges on which the defendant was convicted. The resulting case-level sample contains 320 observations for period 2 and 178 for period 3. Out of those, 78 period 2 cases and 146 period 3 cases have starting point amounts available.

IV. Empirical Tests of our Hypotheses.

We expected the following sentencing outcomes as a result of the changed sentencing guidelines embodied in *Hanham & Philp*:

First, we expected fines, on average, to be greater in period 3 than in period 2 to reflect the new mandatory starting point ranges, the clear signals for the District Courts to take upper bounds on fines seriously, and the general HC raising of the levels of culpability set by the DC Judges in the three appeal cases. Our analysis confirms a strong increase in fines (Table 1). In particular, the mean fine for s 6 offences increased from $13,312 in period 2 to $33,961 in period 3 and the corresponding increase is very similar at the case-level (from $13,957 to $33,627).

Second, we expected fines to exhibit less variation in period 3 than in period 2 as a result of introducing mandatory starting points with prescribed ranges depending only on the assessments of employer culpability. This prediction is also confirmed by our data. In particular, while the standard deviation of fines exceeded mean fines in period 2 (being 151% of the mean in s 6 charges and 141% of the mean in case-level data), it was closer to half of the mean fine in period 3 (at 55% on s 6 charges and 62% at the case-level).

The Court, however, emphasized that fines imposed would be likely to exhibit considerable residual variation due to idiosyncratic features of each case. Thus, we expected that there would be greater variability in actual fines imposed compared to their corresponding starting points. This pattern can be seen in our data (Table 1 and Table 2) where, for s 6 offences, the standard deviation of fines equals 55% of the mean fine while the standard deviation of starting points equals only 36% of the mean starting point. At the case level, the corresponding numbers are 62% and 38%, respectively.

Given mandatory starting points in period 3 and the voluntary use of starting points without guidelines constraining their levels in period 2, we expected greater variability in the earlier period starting point values. Indeed, we do find substantially less variation in starting points in period 3 with standard deviation falling from $64,816 to $25,776 for s 6 charges and from $60,304 to $26,945 at the case level (Table 2).

Differences expected in their mean values, however, were less clear and appeared to require a more detailed analysis of the limited proportion of cases for which starting points were set in period 2. Overall, our findings (Table 2) suggest that starting points increased in period 3 compared to period 2 but the change was not large. In particular, the mean starting point for a fine on a s 6 charge increased from $71,496 to $72,125. At the case level, the corresponding numbers were $66,361 in period 2 and $71,707 in period 3 (Table 2). These aggregate increases partly reflect starting point increases within particular culpability ranges and partly changes in the composition of cases with starting points. For example, as our analysis below shows (Table 5), cases with medium culpability were relatively unlikely to have a starting point adopted in period 2 while they were required to have one adopted in period 3.

Further, given the Court's focus on culpability in determining starting points, we expected to find that culpability would be a highly significant explanatory variable in determining starting points in period 3. To test this hypothesis, we estimated OLS versions of a single-equation 'base-line' linear model where the starting point amount is regressed on a vector of specific sentencing factors from the Guidelines as interpreted by DC Judges, year binary variables, an indicator of the

‘ACC top up’ time period[12], a guilty plea discount[13], the Consumer Price Index, the number of physically-harmed victims, and, for case-level analysis, the number of charges laid. The Guideline sentencing factors include: the degree of culpability (coded as ‘low’, ‘low-medium’, ‘medium’, ‘medium-high’, ‘high’, or ‘unknown’), the degree of harm resulting (‘low or medium’, ‘high’, ‘fatal’, or ‘unknown’), the financial circumstances of the offender (coded with a binary variable to indicate the presence of a defendant’s financial limitations), the attitude of the offender (the presence of remorse, cooperation, and remedial action as indicated by three separate binary variables), an early guilty plea (indicated by a binary variable), the need for deterrence (expressed by two binary variables indicating separately the ‘need for particular deterrence’ and the ‘need for general deterrence’), and the employer’s safety record (coded as ‘poor’, ‘previous convictions’, ‘no previous convictions’, ‘good’, ‘great’, or ‘unknown’).

In a second model, called the ‘full’ model, we add several other ‘facts of the particular cases’ (viz., the presence of a voluntary payment, employer attendance at a restorative justice conference, employee breach of duty, employer size, the presence of employer’s reparation insurance, and the number of related defendants).

Our results (Table 3) confirm the strong influence of culpability in determining starting point amounts. In particular, all of our models (s 6 and case-level, baseline and full) show a highly statistically significant, monotonic relationship between the degree of culpability and the starting point for the corresponding fine. Compared to medium culpability, low culpability receives an average discount of $36,000 - $40,000, low-medium culpability an average discount of $12,000 - $15,000, medium-high culpability an average penalty of $10,000 - $14,000, and high culpability an average penalty over $44,000. Few other case characteristics seem to matter systematically for the setting of starting points in period 3. An exception is the expression of remorse which reduces starting points by about $10,000, ceteris paribus. Somewhat puzzlingly, remedial action seems to increase starting points by around $8,000, ceteris paribus. For s 6 charges, we also find a sizeable discount of $16,600 for the Defendant’s great safety record and a discount between ($11,586-$7,538=) $4,048 and ($14,091-$8,740=) $5,351 for an early guilty plea following *Hessell v R* [2010] NZSC 135, [2011] 1 NZLR 607.

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12. This relates to the decision of the Supreme Court in *Peter Miles Davies v New Zealand Police*, 25 May 2009, SC 83/2007, [2009] NZSC 47.
13. This is indicated by a binary variable that interacts the presence of an early guilty plea with a time dummy for a decision of the Court of Appeal (“CA”) in *R v Hessell*, 2 October 2009, [2009] NZCA 450, and which also relates to an appeal dismissed by the Supreme Court (“SC”) in *Raymond Everest Hessell v R*, SC [2010] NZSC 135, [2011] 1 NZLR 607.

Culpability, however, might not exert such a significant influence in the determination of actual fines in period 3 once aggravating and mitigating factors, and limitations on financial capacity and other sentencing determinants were taken into account. Indeed, using the model above with actual fines as the dependent variable, we find that the financial amounts associated with each level of culpability are substantially lower in our models of actual fines than our models of starting points and the statistical significance of the estimated coefficients is somewhat weaker as well (Table 4). Nevertheless, culpability remains a key determinant of actual fines – especially at its extreme values. In particular, compared to medium culpability, low culpability is associated with an average discount of $16,000-$22,000 and high culpability with an average penalty of at least $15,000. Another key determinant of actual fines are the Defendant's financial limitations which reduce fines by $12,000-$14,000, ceteris paribus. There is also some evidence that the employer's safety record plays an important role in the setting of actual fines - with a poor safety record and a safety record with previous convictions each attracting a potentially large penalty (the exact sizes of which differ substantially between our s 6 and case-level estimates and could more precisely be estimated with additional data).

Menclova and Woodfield (2013) demonstrated the highly significant influence of harm in determining fines in periods 1 and 2, and we did not expect this influence to persist to such a degree (if at all) in period 3. While our findings point to a small discount for low/medium harm and a small penalty for fatal harm as compared to high harm (Table 4), few of the estimated coefficients reach statistical significance. In *Hanham & Philp*, the Court chose to include potential and realized harm as determinants of culpability but did not include harm or other factors directly as determinants of starting points. Notably, given that the HSE Amendment Act 2002 removed the differential maximum fine for (zero harm) incidents compared to accidents, some statutory support for including a role for potential harm in assessing culpability appears evident. The Court (at [52]), while acknowledging that "both the HSE Act and the Sentencing Act oblige the court to have regard to the degree of harm that has occurred," also accepted that "care must be taken when assessing culpability by reference to the outcome." This view is correct in that low levels of care may be consistent with zero or minor incidents or accidents but where the potential for serious harm is considerable. Alternatively, very serious accidents can result even when employer carelessness is at a low or zero level. Total employer liability can be adjusted somewhat by ensuring that emotional harm reparations for very serious accidents are much higher than for lesser accidents, although reparations, unlike fines, are insurable. The degree of harm could still be included as a determinant of starting points, although it makes their fixing a more complex process. For those who argue that fines imposed in the case of very serious accidents remain too low, the inclusion of harm as a determinant of starting points would appear an optional policy change to either raising further the maximum permissible fine or making the upper bound of the range for high culpability much closer to the existing maximum (with consequent adjustments in the lesser culpability ranges). We also expected that the improvement in sentencing consistency at the starting point for fines would, if realized, translate into an improvement in consistency of fines imposed in that a higher proportion of the variability in fines would be explained for the period 3 dataset than that for period 2. In Woodfield, Hickson, and Menclova (2013), we confirmed this trend by obtaining higher R^2 values in our period 3 estimations compared to period 2 (e.g., 0.52 vs. 0.48 in our baseline case-level model); despite there being a significantly lower number of observations available for the later period.

Finally, we explored the availability of starting points in period 2 (and its systematic determinants) by running a probit regression using period 2 data with a binary outcome - starting point set 0/1 – regressed on our usual set of case characteristics[14]. Interestingly, cases with a relatively low OR a relatively high degree of culpability (compared to medium culpability) were significantly more likely to have a starting point adopted in period 2 (Table 5). This may suggest that Judges were choosing more “structured” sentencing in more “extreme” cases. Consistent with that notion, starting points were also more common in cases involving a fatality. Looking at the remaining case characteristics, evidence of remorse and an employer’s great safety record both seem to have reduced the probability of a starting point being adopted. Conversely, starting points were more common where remedial action took place and/or where the employer was of a medium size (rather than large). Finally, at the case level, the number of charges reduced the probability of a starting point being adopted. Regarding the remaining variables in our model, inconsistent (or generally insignificant) results are the norm. Of particular interest, given that the *De Spa* Judges considered the presence of a guilty plea as the only factor that inclined them to find merit in starting points when sentencing for HSE offences, is that a plea of guilty seems to have no impact on the probability of setting a starting point in period 2.

V. Summary.

Our major findings are as follows: Prior to *Hanham & Philp* (and after the implementation of both the Sentencing Act and the HSE Amendment Act), starting points for fines were most likely to be

14. The only difference on the right-hand-side of the model is that ‘ACC top up’ and ‘guilty plea discount’ do not apply in period 2 and are replaced by a post *Street Smart* time period indicator relating to an appeal allowed by the High Court in *Department of Labour v Street Smart Ltd*, 8 August 2008, (2008) 5 NZELR 587 (BC200862161).

adopted in cases with the lowest OR the highest degree of culpability and in cases involving a fatality. Following *Hanham & Philp* when starting points became mandatory, their amounts were strongly monotonically related to the degree of culpability and any direct effect of the degree of harm seems to have become largely irrelevant. District Court judges as a whole appear to have been compliant in their use of culpability levels to determine starting points, and have used finer divisions of culpability than the three broad ranges specified in *Hanham & Philp,* especially for the most common range of medium culpability. Further, these main relationships carry over to the actual fines awarded post *Hanham & Philp* but other determinants differ between starting points and actual fines. For example, an expression of remorse strongly reduced the amount of a starting point but not the actual fine. To the contrary, a defendant's financial limitations had no impact on the amount of a starting point but substantially reduced the actual fine. This result, however, is unsurprising given that *Hanham & Philp* adopted a rule whereby financial limitations would not be addressed until starting points had been set and all other adjustments had been made.

The *Hanham & Philp* HC Judges suggested that their approach should generate more consistent starting points for fines. We confirmed this outcome, and also found greater consistency for imposed fines. The latter outcome would be expected if DC Judges made no dramatic changes in their treatment of aggravating and mitigating factors, accounting for reparations, and for a defendant's financial limitations in response to being required to use a range of starting points. We found, however, greater variability in actual fines than in starting points post *Hanham & Philp* reflecting the role of idiosyncratic case characteristics. Also, starting points used voluntarily prior to *Hanham & Philp* were more variable than starting points set post *Hanham & Philp*, reflecting their selective use and the absence of prescribed ranges for starting points.

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Table 1. Fines in Period 2 vs. Period 3

	S6 Charges				Case-Level			
Period	*Number of observations*	*Mean fine (standard deviation)*	*Minimum fine*	*Maximum fine*	*Number of observations*	*Mean fine (standard deviation)*	*Minimum fine*	*Maximum fine*
2	242	13,312 (20,054)	0	225,000	320	13,957 (19,611)	0	225,000
3	123	33,961 (18,564)	0	85,000	178	33,627 (20,976)	0	105,000

Table 2. Starting Points for Fines in Period 2 vs. Period 3

	S6 Charges				Case-Level			
Period	*Number of observations*	*Mean starting point (standard deviation)*	*Minimum starting point*	*Maximum starting point*	*Number of observations*	*Mean starting point (standard deviation)*	*Minimum starting point*	*Maximum starting point*
2	60	71,496 (64,816)	8,500	350,000	78	66,361 (60,304)	6,000	350,000
3	104	72,125 (25,776)	19,500	150,000	146	71,707 (26,945)	19,500	175,000

Table 3.
Determinants of Starting Points for Fines; Period 3: Starting Point Amount

		S6 Charges		Case-Level	
		Base Model	**Full Model**	**Base Model**	**Full Model**
Degree of culpability (compared to medium)	Low	-35,808*** (5,598)	-36,446*** (5,712)	-40,214*** (5,413)	-38,762*** (5,456)
	Low-medium	-12,928*** (3,945)	-11,875*** (4,210)	-14,704*** (3,781)	-13,118*** (3,842)
	Medium-high	10,452** (4,497)	12,251** (4,768)	11,625*** (4,179)	13,574*** (4,256)
	High	43,533*** (5,699)	47,772*** (6,292)	52,088*** (5,487)	55,515*** (5,760)
Degree of harm (compared to high)	Low/Medium	-2,008 (3,671)	-3,158 (3,865)	-3,267 (3,597)	-3,009 (3,693)
	Fatal	7,622* (4,355)	5,643 (4,931)	8,068** (3,958)	5,148 (4,197)
Defendant's financial limitations		172 (3,315)	2,025 (3,587)	-543 (3,060)	1,018 (3,138)
Remorse		-9,142** (4,191)	-8,022* (4,573)	-9,744*** (3,687)	-11,170*** (3,832)
Co-operation		-10,966** (5,148)	-8,208 (6,011)	-124 (4,465)	3,869 (4,899)
Remedial action		10,363*** (3,791)	7,416* (4,417)	8,250** (3,481)	7,503** (3,780)
Guilty plea		8,740 (6,318)	7,538 (6,572)	4,612 (5,962)	4,717 (6,152)
Need for particular deterrence		6,540 (5,092)	9,048 (5,680)	5,486 (4,891)	7,149 (5,273)
Need for general deterrence		-4,411 (4,995)	-6,960 (5,522)	-6,850 (4,789)	-8,910* (5,225)
Safety record (compared to no previous convictions)	Poor	-2,038 (13,177)	5,730 (14,929)	-22,905* (12,064)	-17,751 (12,898)
	Previous convictions	-80 (3,968)	1,576 (4,234)	783 (3,895)	2,322 (4,095)
	Good	3,269 (3,835)	4,238 (3,945)	2,579 (3,829)	3,097 (3,889)
	Great	-16,651* (8,429)	-16,591* (8,945)	-10,055 (8,330)	-9,503 (8,392)
Number of victims		1,190 (1,003)	1,209 (1,168)	1 (1,059)	-387 (1,144)
Number of charges		-	-	2,521 (4,704)	1,429 (4,696)
Voluntary payment made		-	5,092 (3,752)	-	3,315 (3,397)
Restorative justice conference		-	2,692 (7,989)	-	11,686* (6,659)
Employee breach of duty		-	2,455 (3,482)	-	-3,823 (3,275)
Size of employer (compared to large)	Small	-	-1,993 (5,237)	-	-363 (4,669)
	Medium	-	-5,373 (5,765)	-	-5,902 (5,556)
Consumer Price Index		-15 (151)	-24 (161)	75 (156)	42 (159)
Reparation insurance		-	8,272 (7,300)	-	8,222 (6,602)
ACC Top up		-468 (5,356)	-2,658 (5,796)	-277 (5,178)	-1,495 (5,352)
Guilty plea discount		-14,091** (6,388)	-11,586* (6,832)	-5,740 (5,777)	-4,174 (5,943)
Number of related defendants		-	-954 (3,708)	-	1,812 (2,218)
R^2		0.82	0.83	0.76	0.78

Table 4.
Determinants of Fines; Period 3

		S6 Charges		Case-Level	
		Base Model	**Full Model**	**Base Model**	**Full Model**
Degree of culpability (compared to medium)	Low	-22,301*** (3,843)	-21,963*** (3,977)	-17,475*** (3,799)	-15,745*** (3,873)
	Low-medium	-8,620*** (2,320)	-7,454*** (2,458)	-6,514*** (2,392)	-4,777* (2,484)
	Medium-high	8,864** (4,133)	9,987** (4,002)	11,106*** (3,720)	12,008*** (3,609)
	High	15,419** (7,738)	18,750** (8,373)	20,608*** (7,879)	21,943*** (8,068)
Degree of harm (compared to high)	Low/Medium	-787 (2,143)	-2,255 (2,455)	-4,696** (2,277)	-5,605** (2,368)
	Fatal	7,236 (4,389)	6,822 (4,352)	2,281 (3,661)	1,123 (3,613)
Defendant's financial limitations		-13,506*** (3,045)	-11,850*** (3,157)	-13,672*** (2,953)	-12,295*** (3,071)
Remorse		-2,441 (3,218)	-1,264 (3,584)	-4,971* (2,791)	-4,988 (3,252)
Co-operation		2,722 (5,139)	4,575 (5,903)	2,399 (4,203)	5,065 (4,348)
Remedial action		3,379 (3,457)	1,419 (3,283)	7,196* (3,726)	5,520 (3,367)
Guilty plea		-3,262 (5,514)	-3,572 (5,376)	-2,912 (5,330)	-3,531 (5,273)
Need for particular deterrence		-4,497 (3,584)	-1,712 (3,618)	-3,263 (3,457)	-2,198 (3,756)
Need for general deterrence		-1,927 (3,408)	-4,790 (3,643)	-2,464 (3,482)	-4,127 (3,633)
Safety record (compared to no previous convictions)	Poor	3,588 (10,267)	11,145 (11,748)	32,081*** (11,974)	35,024** (13,723)
	Previous convictions	6,637* (3,639)	8,253** (3,900)	5,199* (2,948)	5,039 (3,160)
	Good	3,432 (3,780)	4,066 (3,760)	1,723 (3,168)	899 (3121)
	Great	-9,561 (10,732)	-9,541 (80,181)	-12,444 (7,577)	-13,056* (7,215)
Number of victims		-2,010** (918)	-1,756* (969)	-1,429 (1,048)	-1,085 (1,260)
Number of charges		-	-	7,064 (4,396)	7,555* (4,069)
Voluntary payment made		-	4,867* (3,890)	-	4,425* (2,623)
Restorative justice conference		-	-53 (6761)	-	6,410 (8,875)
Employee breach of duty		-	838 (2254)	-	-2,072 (2,065)
Size of employer (compared to large)	Small	-	-2,785 (4,477)	-	-4,672 (4,293)
	Medium	-	-6,490 (6,332)	-	-3,434 (6,487)
Consumer Price Index		-137 (167)	-151 (160)	-212 (177)	-216 (174)
Reparation insurance		-	3,605 (7,600)	-	888 (6467)
ACC Top up		9,295* (5,117)	8,003 (5,109)	6,656 (4,720)	6,273 (4,550)
Guilty plea discount		-4,230 (5,971)	-2,569 (5,979)	5,610 (6,080)	6,027 (5,661)
Number of related defendants		-	-2,334 (2,728)	-	-2,646 (1,861)
R^2		0.56	0.58	0.52	0.55

Table 5.
Determinants of Starting Points for Fines; Period 2: Starting Point Adopted Yes/No

		S6 Charges		Case-Level	
		Base Model	Full Model	Base Model	Full Model
Degree of culpability (compared to medium)	Low	0.251* (0.137)	0.447* (0.236)	0.476** (0.207)	0.506** (0.210)
	Low-medium	0.259*** (0.089)	0.369** (0.153)	0.179* (0.099)	0.198* (0.102)
	Medium-high	0.332*** (0.104)	0.481*** (0.173)	0.373*** (0.117)	0.381*** (0.129)
	High	0.340*** (0.126)	0.482** (0.200)	0.283** (0.144)	0.333** (0.163)
Degree of harm (compared to high)	Low/Medium	-0.002 (0.126)	0.029 (0.146)	0.032 (0.108)	0.060 (0.113)
	Fatal	0.263** (0.102)	0.426** (0.169)	0.172* (0.093)	0.232** (0.114)
Defendant's financial limitations		0.122 (0.077)	0.119 (0.104)	0.012 (0.060)	0.010 (0.059)
Remorse		-0.185** (0.089)	-0.232* (0.119)	-0.142 (0.088)	-0.152* (0.090)
Co-operation		0.110 (0.104)	0.094 (0.096)	0.088 (0.071)	0.073 (0.074)
Remedial action		0.334*** (0.105)	0.227*** (0.041)	0.103 (0.068)	0.109* (0.060)
Guilty plea		0.165 (0.132)	0.122 (0.080)	0.076 (0.074)	0.077 (0.076)
Need for particular deterrence		-0.110 (0.079)	-0.076 (0.074)	-0.053 (0.054)	-0.048 (0.057)
Need for general deterrence		0.040 (0.071)	0.033 (0.074)	0.026 (0.062)	0.001 (0.063)
Safety record (compared to no previous convictions)	Poor	-	-	0.039 (0.170)	0.126 (0.174)
	Previous convictions	-0.034 (0.074)	-0.014 (0.075)	-0.060 (0.059)	-0.047 (0.062)
	Good	-0.091 (0.078)	-0.082 (0.061)	-0.079 (0.054)	-0.077 (0.051)
	Great	-0.482*** (0.161)	-0.185*** (0.036)	-0.072 (0.076)	-0.049 (0.083)
Number of victims		0.102* (0.053)	0.084 (0.057)	0.058* (0.033)	0.046* (0.028)
Number of charges		-	-	-0.075** (0.033)	-0.055* (0.031)
Voluntary payment made		-	-0.034 (0.078)	-	0.120 (0.086)
Restorative justice conference		-	0.053 (0.152)	-	-0.119** (0.050)
Employee breach of duty		-	-0.102 (0.080)	-	-0.027 (0.067)
Size of employer (compared to large)	Small	-	0.039 (0.134)	-	0.007 (0.092)
	Medium	-	0.501** (0.255)	-	0.442** (0.221)
Consumer Price Index		0.008** (0.003)	0.009** (0.004)	0.006** (0.003)	0.008*** (0.003)
Reparation insurance		-	-0.301*** (0.044)	-	-0.076 (0.086)
Post *Street Smart* time period		0.138 (0.145)	0.154 (0.218)	-0.099 (0.069)	-0.114** (0.056)
Number of related defendants		-	0.075 (0.146)	-	-0.136* (0.076)
R^2		0.44	0.47	0.37	0.41