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Why are there More Accidents on Mondays? Economic Incentives, Ergonomics or Externalities

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Disclaimer

The results in this paper are not official statistics, they have been created for research purposes from the Integrated Data Infrastructure (IDI), managed by Statistics New Zealand. The opinions, findings, recommendations, and conclusions expressed in this paper are those of the authors, not Statistics NZ, the Accident Compensation Corporation or WorkSafe New Zealand. Access to the anonymised data used in this study was provided by Statistics NZ in accordance with security and confidentiality provisions of the Statistics Act 1975. Only people authorised by the Statistics Act 1975 are allowed to see data about a particular person, household, business, or organisation, and the results in this paper have been confidentialized to protect these groups from identification. Careful consideration has been given to the privacy, security, and confidentiality issues associated with using administrative and survey data in the IDI. Further detail can be found in the Privacy impact assessment for the Integrated Data Infrastructure available from www.stats.govt.nz.

Abstract

Research consistently finds more workplace injuries occur on Mondays than on other weekdays. One hypothesis is that workers fraudulently claim that off-the-job weekend sprains and strains occurred at work on the Monday in order to receive workers' compensation. We test this using data from New Zealand, where compensation is virtually identical whether or not an injury occurs at work. We still find that work claims, especially sprains and strains, occur disproportionately on Mondays, although less than in other jurisdictions. This suggests fraudulent claims in other countries are just one part of the story. Furthermore, we find work claims remain high on Tuesdays, and that workers' sprains and strains that occur off-the-job also disproportionately fall on Mondays. Sprains and strains treated at hospitals, which are not closed over the weekend, are also elevated on Mondays. However, Monday lost-time injuries are less severe than injuries on other days. Our findings are consistent with a physiological mechanism contributing to elevated Monday injury claims in New Zealand, but do not suggest doctors' offices being closed over the weekend, ergonomic explanations, or work being riskier on Mondays play important roles.

JEL codes

I18, I13, J38

Keywords

Monday effect, workers' compensation, accidents, incentives

Summary haiku

Work injuries fall
more often on Mondays. Blame
physiology.

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1 Introduction

Previous research has found that in a number of countries there are more workers' compensation claims for injuries on Mondays than on any other day of the week.[1] This has been referred to as the "Monday Effect". It is also typically found that there are a high proportion of strains and sprains that occur on Monday. Taken together, the literature has hypothesized that this mainly occurs because individuals are responding to economic incentives and falsely claiming that injuries which occurred over the weekend actually occurred on Monday in order to access workers' compensation benefits that they otherwise wouldn't receive (Hansen, 2016; Martin-Roman & Moral, 2016; Smith, 1990).

In this paper, we examine the Monday Effect in New Zealand, which has an unusual universal no-fault accident compensation system that covers all injuries regardless of where they occur and pays the same compensation to workers for injuries occurring at work and during their leisure time. Hence, the mechanism discussed above should have little impact on claiming behavior in our context. Another hypothesis for the Monday Effect discussed in the literature is physiological, i.e. workers are actually more prone to strains and sprains on Monday after a weekend off from work (Butler et al., 2014; Campolieti & Hyatt, 2006; Card & McCall, 1996; Martin-Roman & Moral, 2016), perhaps because of fatigue or hangovers as a result of weekend activities or a dislike of working on a Monday. In our context, we are able to directly test this hypothesis and also the more general case that the Monday Effect is a type of externality caused by the existence of weekends. This could occur because doctors' offices are closed on the weekend or because people generally do not like Mondays and consequently have lower pain threshold.[2]

We use high quality administrative data on the universe of accident claims in New Zealand between January 2001 and July 2018 to test the relevance of these different theories for the Monday Effect. This is the first paper, to our knowledge, to investigate whether injuries are elevated on a Monday under universal no-fault accident compensation.

[1] There are a number of papers showing this finding for the US (Brogmus, 2007; Butler, Kleinman, & Gardner, 2014; Card & McCall, 1996; Hansen, 2016; Smith, 1990), Canada (Campolieti & Hyatt, 2006; Choi, Levitsky, Lloyd, & Stones, 1996; Mason, 1979)), Spain (Martin-Roman & Moral, 2016) and Australia (Wigglesworth, 2006).

[2] Psychosocial risk factors have been found to be associated with musculoskeletal pain in the workplace (Bernal et al, 2015; Lang, Ochsmann, Kraus & Lang, 2012). Taylor (2002) finds that people surveyed on a Friday have higher levels of self-reported job satisfaction compared to those interviewed earlier in the week. In theory, this indicates that people may be less satisfied (possibly due to higher levels of stress), earlier in the week, which could be associated with a lower pain threshold for musculoskeletal injury.

Hence, we are also the first paper to examine whether the existence of weekends contributes to the Monday Effect.

We first replicate for New Zealand the typical analysis from the literature to see whether the Monday Effect persists when there are no differences in compensation entitlements for injuries at work and during leisure time. Finding that it does, we next examine the relevance of physiological explanations, as well as the general explanation that the weekend creates negative externalities on Monday. We do this by exploiting i) that fact that we have information on injury claiming behavior for individuals who are not working, for which physiological and incentive effects clearly do not exist; and ii) that we can look at individuals treated in a hospital, which are fully open on the weekends. We also use information on the severity of injuries to examine whether pain thresholds are lower earlier in the week.

We find that there is a Monday Effect in New Zealand: 21.7 percent of weekday work injury claims that result compensation for time away from work occur on a Monday. The size of the Monday Effect for sprains and strains is slightly larger, with 22.3 percent of weekday work lost-time claims for sprains and strains occurring on a Monday. We find no evidence of a Monday Effect for lost-time off-the-job or non-workers' claims, and only a very small Monday Effect for hospitalisations; however sprains and strains are elevated on a Monday in each of these datasets (21.1% for off-the-job lost-time claims, 20.6% for working-age non-workers' claims, and 21.4% for working-age hospitalisations).Work injuries on a Monday are also less severe than other weekdays. We also find that the higher proportion of work claims is not specific to Mondays. Rather, the proportion of weekly work claims starts high on a Monday and decreases through the week, with the fewest claims on a Friday.

Overall, the magnitude of excess Monday work lost-time injuries in New Zealand, 1.7%, is substantially lower than that found in prior studies of Ontario (4.7%) and Minnesota (3.0%), where incentives for fraudulent claims are much stronger than in New Zealand. In general, we find little support for the idea that fraudulent claims are important for understanding the Monday Effect in New Zealand; we find both elevated sprains and strains claims on Tuesdays and elevated Monday strains and sprains claims among non-workers, neither of which is consistent with fraudulent claims driving the Monday Effect. Ergonomics and higher work risks are also inconsistent with this evidence.

Turning to alternative hypotheses, we do not find evidence that the Monday Effect occurs because doctors' offices are closed on the weekend, as we also find higher claims made in hospitals on Mondays. On the other hand, we find support for the idea that the Monday Effect is caused by the impact of the weekend on individuals' physiological state. This could be because individuals are fatigued or hungover from weekend activities or because pain thresholds before seeking treatment are lower earlier in the week. We find supporting evidence for both mechanisms; injury rates decline throughout the week while injury severity is lower on a Monday.

2 New Zealand Institutions

Under the Accident Compensation Act 2002, everyone in New Zealand is entitled to comprehensive injury insurance cover, including tourists and the self-employed. Insurance coverage includes compensation for the costs of injury following an accident, such as medical treatment, lost wages and additional expenses where required (e.g. home help). When a person seeks treatment for an injury (e.g., visits a doctor, dentist, physiotherapist), the treatment provider will complete a form with information on initial diagnosis and ability to work (if relevant) and send it to the Accident Compensation Corporation (ACC) on the patient's behalf. Claims made under the scheme provide complete coverage of all injuries in New Zealand for which treatment has been provided by doctors, dentists and physiotherapists.[3]

A doctors' certificate is required to certify that an injury requires time off work. ACC pays weekly compensation of 80% of pre-injury earnings (Accident Compensation Act 2002, sch 1 s32) regardless of where the injury occurred and who was at fault. This compensation is capped at an amount that is adjusted each year.[4] There is a one-week stand-down period for loss of earnings compensation. If the injury occurred at work, this excess is paid by the employer (Accident Compensation Act 2002 s97); if the injury occurred to a worker off the job, it is paid through sick leave or annual leave entitlements (Accident Compensation Corporation, 2017b). This means that time off work is observed in accident compensation claims data only when it involves more than a week off work. This introduces a weak incentive for individuals to falsely report that off-the-job injuries that require time off work occurred at work, so their employer will compensate them for their first week of lost earnings rather than it coming out of their leave. Clearly, this is a much

[3] Private health insurance coverage does not overlap accident insurance, rather it provides additional coverage to complement that provided by ACC.
[4] The gross maximum rate of weekly compensation payable in 2017/18 was NZ$1,940.75 per week (applied from 1 July 2017 to 31 June 2018) (Accident Compensation Corporation, 2017a).

smaller incentive to misreport an injury as occurring at work on Monday than in a system where there is no compensation for off-work injuries.

Accident compensation in New Zealand sits within a mixed private-public funding model for primary healthcare and a fully funded publicly provided secondary healthcare model. Primary health care services are funded through District Health Boards (DHBs). Funding is based on the number of people enrolled with a Primary Health Organisation (PHOs), and the demographic composition of their enrolled population, rather than the number of visits (Ministry of Health, 2014), although general practitioners (GPs) retain the right to charge user fees (Ministry of Health, 2017).

Unlike primary health care, public hospitals are fully funded, and elective services are managed on a prioritisation basis. Hospital treatment is free, irrespective of whether the person has an injury or illness. The hospital receives funding from ACC to cover the cost of treating injuries and from the DHB to cover the cost of treating other issues (e.g., illnesses). There are some private hospitals available for those willing to pay for non-urgent treatment. Although New Zealand has a private health insurance market, it is relatively small (The Treasury, 2014). In 2015, 71% of healthcare expenditure was funded by the government, nine percent through accident compensation insurance, five percent by voluntary private health insurance and 15% by user charges (OECD, 2017).

3 Data

The data used in this paper come from the Integrated Data Infrastructure (IDI), an individual-level longitudinal data set managed by Statistics New Zealand. Individuals are linked between the data sets from different source agencies using deterministic and probabilistic linking. Most of the data sources are administrative and cover the full population, not just a sample. The main IDI data used here is all accepted accident compensation claims. The data cover the period January 2001 to July 2018. We exclude gradual process injury because, by definition, these types of injuries do not have a clear accident date. Sometimes there are multiple claims for the same accident and person, each with a different claim ID. We assume that if an individual has multiple claims for an accident that occurred on the same day then it is the same accident. The claim with the highest amount of compensation paid-to-date is kept.

Consistent with the previous studies (Campolieti & Hyatt, 2006; Card & McCall, 1996), we exclude claims for injuries that occur on the weekend for most of our analysis, restricting analysis to the typical Monday-to-Friday working week. Our main analysis focuses on injuries that involve a week or more of time away from work, which we refer to as lost-time injuries. We focus on these injuries both to improve the comparability of our results with international findings and because we expect the claims information for these injuries to be more accurate, as when only medical fees are paid out ACC verifies only the most relevant information (Statistics New Zealand, 2015).

We also use data on publicly funded hospital discharges to test whether there is a Monday Effect in injuries treated in hospitals. Privately funded hospital events have been excluded from this data because the available information is incomplete. Our hospital discharges data contain information on the start date of the hospital event and the type of injury. We focus on events with a start date between 2001 and 2017 and a primary diagnosis of an injury or a poisoning. Information on work status is not available in this data, so we restrict the hospitalisations sample to those of working age (15-64 years) to improve comparability with the worker samples.

We measure day of the week based on the accident date (as distinct from the treatment date or the claim acceptance date). This information is usually recorded by the doctor following a discussion with the patient about when the injury happened and how it happened. To be eligible for compensation, an injury needs to be caused by a specific incident, so all accepted injury claims have an accident date. Injuries are grouped into seven injury type categories: sprains and strains; cuts and lacerations; contusions; fractures; burns; dislocations; and other.[5]

Figure 1 displays the distribution of lost-time injuries for workers by the day of the week for work injuries (left hand panels) and off-the-job injuries (right hand panels). It shows work injuries are lowest on the weekend when fewer people work and off-the-job injuries are highest on the weekend when most workers are off work. Once we restrict our focus to weekdays, the highest proportion of work injuries occur on a Monday (21.7%), and the lowest proportion on a Friday (18.2%).[6] This is equivalent to an excess of around 300 lost-time work claims on Mondays per year. For off-the-job injury, the highest proportion of

[5] Claims are assigned to injury type based on the first two digits of the primary diagnosis code.

[6] Data on hours worked by day of the week in New Zealand are limited. It is known that about 63 percent of workers in New Zealand usually work all hours at standard times (between 7am and 7pm Monday to Friday) (Statistics New Zealand, 2008) and that Retail Trade and Agriculture, Forestry and Fishing industries have a higher proportion of people working on the weekend (Callister & Dixon, 2001). New Zealand Time Use Survey data from the 1990s indicate that the highest number of hours worked on average occurs on a Tuesday (7.9 hours) and the lowest on a Friday (7.5 hours), with 19.1 percent of all paid weekday work time occurring on a Monday (Callister & Dixon, 2001). We do not have any reason to believe that this pattern has changed over time.

injuries occurred on a Friday (21.9%), possibly alcohol-induced, with the second-highest number occurring on a Monday (19.9%).

Figure 2 displays the weekday patterns for all injury claims, not just the lost-time injury subsample, and for hospitalisations. Including all claims does not change the pattern for work injury. For working age non-workers, the highest proportion of weekday injuries occurs on a Wednesday, and the lowest on a Friday. For weekday hospitalisations of working age individuals, the highest proportion of injuries occurs on a Monday, followed by a Friday.

Table 1 displays summary statistics for the sample of work lost-time injuries, off-the-job lost-time injuries and working-age non-worker injuries.[7] The average number of compensated days for work injury (100.4) is higher than that found in other countries because injuries with less than a week off work are excluded here.[8] The average number of compensated days for a work injury is 99.3 for Monday injuries and 100.7 for injuries that occurred on other weekdays. The values are slightly lower for off-the-job injuries: 82.1 for Monday injuries and 84.1 for other weekday injuries.

There are higher proportions of sprains and strains on a Monday than other weekdays among work injuries, off-the-job injuries, non-workers' injuries, and working-age hospital injuries. Sprains and strains make up 41.9% of work injuries on a Monday compared with 40.6% on other weekdays. The proportions are slightly lower for off-the-job injuries, with 38.5% of Monday injuries being sprains or strains and 35.9% of injuries on other weekdays. Sprains and strains make up a higher proportion of non-workers' claims: 50.3% of Monday claims and 48.1% of other weekday claims. Strains and sprains are a much lower proportion of hospital injuries, making up 7.7% of Monday injuries and 7.2% of other weekday injuries.

4 Main Results

4.1 Descriptive Analysis

We begin by testing whether, as is observed internationally, weekday lost-time work injuries are disproportionately likely to be reported to occur on Mondays, overall and for each injury type. If injury risk per hour of work were constant throughout the week, then

[7] Non-workers' are not entitled to loss of earnings compensation so there are no 'lost-time' claims for this group.
[8] ACC starts paying weekly compensation one week from the day of the first doctor visit for treatment. There is no information available in the claims data for time off work if the person requires less than a week off.

the proportion of weekday workplace injuries that occurred on Monday would be equal to the proportion of weekday hours worked on Mondays. We thus use one-sided *t*-tests to test whether more than 20 percent of weekday workplace lost-time injuries occur on a Monday. Finding a Monday Effect here could indicate workers genuinely have higher injury rates on Mondays, or that they misreport injuries as disproportionately occurring on Mondays.

Table 2 presents the results of our t-tests and the comparable results from other jurisdictions estimated in prior studies. Workers in New Zealand who sustain off-the-job injuries have very little incentive to misreport these as work injuries because access to and cost of healthcare is identical for work and off-the-job injuries, and compensation for the two differs only for the first week of lost work time. We find that 21.7% of weekday lost-time work injuries in New Zealand occur on a Monday (with a 95% confidence interval of 21.5% to 21.8%), and this percentage is statistically significantly greater than 20%. However, it is economically and statistically significantly smaller than the 23.0% (with 95% confidence interval of 22.7% to 23.3%) found in Minnesota (Card & McCall, 1996) and the 24.7% (with 95% confidence interval of 24.3% to 25.1%) found in Ontario (Campolieti & Hyatt, 2006). This suggests that the fraudulent claims theory may explain half or more of the Monday Effect in countries where there are incentives to make fraudulent workers' compensation claims, but it is not the full story.

We next conduct *t*-tests for whether injuries overall or strains and sprains in particular are disproportionately likely to occur on each weekday. The ease with which injuries can be misreported or faked depends a lot of the type of injury. Strains and sprains are easier to misreport than are other types of injury, because delaying seeking medical attention for them is less costly and they are more easily concealed. Furthermore, the fact sprains and strains are harder to diagnose makes them more liable to be both misreported and faked. A larger Monday Effect for strains and sprains than for injures in general would therefore be consistent with misreported or faked injuries.

These results are shown in Table 2. We find that 22.3% of weekday sprains and strains in New Zealand occur on a Monday, a higher proportion than any other day. This magnitude of Monday Effect is more than twice as large as for any other injury type, though cuts and lacerations, dislocations, fractures, and contusions also have a higher likelihood of occurring on a Monday than on other days. Burns are less likely to happen on a Monday (17.9%). These values are all statistically significantly different to 20%. The lower fraction of Monday burns is common to Ontario and Minnesota, but in these two jurisdictions dislocations have the largest Monday Effect (though the number of observations for dislocations is low in Ontario).

The first panel of Table 3 looks at whether lost-time work injuries overall, lost-time work sprains and strains ('sprains'), and other lost-time work injuries ('non-sprains') are more likely to occur on each individual day of the week. Studying the pattern of injuries across each day of the week allows us to distinguish whether any higher injury rate on Mondays is specific to Mondays or whether it is an "early in the week" phenomenon. A Monday Effect driven by fraudulent claims, impairment, or the closure of doctors' offices over the weekend should not carry over to above-average claims on a Tuesday; if dissatisfaction drives a Monday Effect, Tuesdays might also have elevated rates of claims. Weeks with a public holiday are excluded from these tables to improve comparability of the weekdays.

We find that these injuries overall are also elevated on Tuesdays, though to a smaller extent than on Mondays. In fact, the fraction of weekday injuries falls steadily through the week, with Monday, Tuesday, and Wednesday work injuries all statistically significantly higher than 20%. Strains and sprains are similarly downward sloping, again with Tuesday injuries elevated. Lost-time work injuries other than strains and sprains reflect the same pattern as injuries overall, decreasing steadily through the week with Monday, Tuesday, and Wednesday injuries all statistically significantly higher than 20%. All work injury claims, shown in Appendix Table A1, have a similar pattern over the week to lost-time work injury claims.[9]

We next repeat these tests for lost-time off-the-job injuries to workers and all injury claims by non-workers. If fraudulent claims, ergonomics, or higher work risk drive a Monday effect in work claims, we would not expect to see a similar Monday effect for the off-the-job injuries of workers. However, if doctors' office closures, worker impairment, or higher dissatisfaction drive a Monday effect in work claims, we would expect to see a similar Monday effect in the off-the-job claims of workers. Non-workers' claims will also not be affected by fraudulent claims, ergonomics, or higher work risk, and may not be affected by higher dissatisfaction on Mondays.

The second panel of Table 3 examines off-the-job lost-time injuries. The population at risk here is the same, workers, but the causes of the injuries differ. We find that off-the-job

[9] The differences when all work injury claims are considered are that the proportion of non-sprains on a Thursday is also statistically significantly higher than 20% and the proportion of non-sprains on a Monday is lower than that on Tuesday and Wednesday.

lost-time injuries as a whole are most likely to occur on a Friday (21.9%), many of which are likely to be alcohol-related. Even within the days Monday to Thursday, off-the-job lost-time injuries do not show the same downward-sloping pattern Mondays, Wednesdays, and Thursdays have relatively similar numbers of injuries, and Tuesdays have fewer. However, off-the-job lost-time sprains and strains are more likely to occur on a Monday (21.1%). Off-the-job lost-time non-sprains follow the same pattern as injuries overall, with a highest proportion of injuries occurring on a Friday (23.2%).[10]

The final panel of Table 3 presents results for non-worker injuries. Non-workers are a heterogeneous group that includes people such as students, tourists, beneficiaries, and stay-at-home parents. We find no evidence of a Monday Effect overall for non-workers, though Monday strains and sprains are slightly elevated. The broader pattern is elevated and rising injuries from Monday through Wednesday, and fewer injuries on Thursday and Friday.

4.2 Regression Analysis

We next use linear probability regressions to test whether Monday injuries are more likely to be of each type relative to the injuries that occur on other weekdays, with a particular interest in whether they are more likely to be sprains or strains. This approach allows us to control for individual characteristics including, in the case of work injuries, industry and occupation. We can thus test whether Monday work injuries are disproportionately likely to be strains or sprains relative to work injuries in the same occupation and industry that occur on other days of the week.

For each type of injury, the regressions we run take the form:

$$InjuryType_{idt} = \alpha + \gamma Monday_{dt} + \beta X_{idt} + \alpha_t + \epsilon_{it} \quad (6)$$

where $InjuryType_{idt}$ is an indicator variable denoting the type of injury reported by person i on day of the week d in year t, $Monday_{dt}$ is an indicator for whether the injury occurred on a Monday (or the Tuesday after a Monday public holiday),[11] X_{idt} are controls for a limited set of individual characteristics (including industry grouping and occupation in the case of work injuries),[12] and the α_t are year fixed effects. We run the regression separately

[10] Extending the sample to all off-the-job injuries, as shown in Appendix Table A1, we find a small Monday Effect for all injuries, consisting of an 'early in the week' pattern for strains and sprains, and a higher proportion of non-sprains on a Friday (20.9%) and a lower proportion on a Tuesday (19.4%).

[11] We include Tuesdays after a public holiday Monday in the Monday variable because they are the first day back at work after several days off, and thus any mechanisms that drive higher rates of reported injuries on Mondays are likely to apply to these days as well.

[12] Gender, age, self-reported ethnicity combination; for example, if a person reports that he is Māori and NZ European he is coded to a 'Māori and New Zealand European' category. Where the number of observations

for work injuries involving lost time, injuries to workers that occurred off the job and involved lost time, all work injuries, all injuries to workers that occurred off the job, and injuries to non-workers. We report standard errors clustered at the individual level to allow for arbitrary correlation within individuals over time.

Table 4 displays the results for each injury type and category of claim. Each coefficient presented is the coefficient on the Monday dummy from a separate regression as described in equation six. Each column represents a different sample of claims: work lost-time injuries; off-the-job lost-time injuries; all work injuries; all off-the-job injuries; and all working-age non-worker injuries.

For every claim category, sprains and strains make up a greater proportion of injuries on a Monday than on other weekdays after controlling for other characteristics. The estimate for work lost-time sprains and strains is a statistically significant 1.8 percentage points, which is smaller than the 2.6 percentage points found in Ontario by Campolieti and Hyatt (2006).[13] All off-the-job injury claims and non-worker injury claims have similar estimates at 1.9 and 1.8 percentage points respectively; lost-time off-the-job injury claims and all work injury claims have higher estimates of 2.3 and 2.9 percentage points respectively. The Monday coefficient results for all other injury types and claim categories are negative or very small in magnitude and not statistically significant. These results support the idea that there may be something about Mondays that increases the risk of sprains and strains more generally rather than being caused by something specific to work.[14]

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with an ethnicity combination is fewer than 100, the individuals are coded to an 'Other' category. For work injuries, we also include controls industry risk group and occupation fixed effects. Industries are placed in three groups based on risk of harm. Group 1 contains the high-risk industries of Agriculture, Forestry and Fishing; Mining, Manufacturing; Electricity, Gas, Water and Waste Supplies; Construction; and Transport, Postal and Warehousing. Group 2 contains the medium risk industries of Public Administration and Safety; Education and Training; Healthcare and Social Assistance; and Arts and Recreation. All other industries are in Group 3. For lost-time injuries, we include average weekly benefits as a proxy for weekly earnings.

[13] Adding industry risk group interactions with the Monday variable produces interaction coefficients that are small and not statistically different from zero, indicating that the Monday Effect results are not industry risk group specific.

[14] These results are robust to removing weeks with a public holiday; including weekends in the data and adding dummy variables for each day of the week (omitting Wednesdays); excluding industries likely to have a large proportion of the workforce working on the weekends: Agriculture, Forestry and Fishing, Retail Trade, and Accommodation and Food Services. See Appendix Table A2 for the results of these robustness checks. The results are also broadly consistent when the samples of work and off-the-job injury claims are extended from lost-time claims to all claims.

4.3 Monday Effect in Hospitalisations

To look at whether the results relate to doctors' offices being closed in the weekend, we investigate whether there is a Monday Effect in public hospitalisation data, since hospitals are open seven days a week. The top panel of Table 5 shows the proportion of injury hospitalisations for working-age people that occur on a Monday is 20.4 percent. This is statistically significantly above 20 percent, but not as high as the 21.7 percent found for lost-time work injuries. The proportion of strains and sprains in the hospitalisations data that occur on a Monday is higher, at 21.7 percent, but again is lower than the 22.3 percent found for lost-time work strains and sprains.

The lower panel of Table 5 presents regression analysis that tests whether the probability an injury hospitalisation is each particular injury type is higher if it occurred on a Monday, controlling for individual characteristics. For strains and sprains, the coefficient on Monday for injuries requiring hospitalisation is substantially smaller than for the other types of claims discussed previously, but it is positive and statistically significant (0.5 percentage points). The Monday coefficient for fractures is positive and similar in magnitude to that for sprains and strains; for all other injury types, the Monday coefficient is close to zero or negative. These results do not suggest that doctors' office hours are an important driver of the increased proportion of sprains and strains on Mondays, though we can't rule out that they have some effect.

4.4 Relative Severity of Monday Injuries

If excess Monday strains and sprains are not the result of misrepresentation or faking, they could occur because workers are more likely to be injured on a Monday, or because a worker who receives an injury with a given level of severity is more likely to seek treatment (and thus appear in our data) if the injury occurred on a Monday. If the latter were the case, we would expect the average severity of reported Monday accidents to be lower than the severity of accidents that occurred on other days.

To attempt to distinguish between these hypotheses, we run two regressions relating to injury severity by day of the week. First, we regress a dummy for a work injury being a lost-time injury on a Monday dummy and controls. Second, we limit the sample to lost-time work injuries and regress the log number of days of loss of earnings compensation paid on a Monday dummy and controls. The coefficients on the Monday variables tell us whether Monday injuries are less likely to be lost-time injuries, and whether lost-time Monday injuries involve less lost work time than injuries on other days. We repeat this analysis for off-the-job injury claims. In each case, we run the regressions separately for all injuries and for the sub-sample of sprains and strains. Significant effects in the case of strains and sprains would suggest more treatment of low-severity strains and sprains that occur on a Monday contributes to the excess strains and sprains we observe on a Monday.[15]

Table 6 displays the results for work and off-the-job claims. Work injury claims on a Monday are 0.3 percentage points (2.7%) more likely to be lost-time claims than are claims on other weekdays, while off-the-job injury claims on a Monday are 0.1 percentage points (2.6%) less likely to be lost-time claims. Both results are small but statistically significantly different from zero. The coefficients on Monday for sprains and strains are small and not statistically significant for the samples of injuries that occur at work and that occur off the job. Looking at the duration of time off work for lost-time claims, the coefficient on Monday is negative and statistically significant in the work injury regression that pools all injury types, and the magnitude of the coefficient suggests injuries that occur on Monday and involve lost time involve 3.5 percent fewer days off work than injuries that occur on other days. The coefficient is similarly negative and significant in the regressions that limit the sample to sprains and strains. In the equivalent regressions for off-the-job injuries the coefficient on Monday tends to be even more negative.

Overall, these regressions provide evidence that Monday lost-time injury claims, both those that occur at work and those that occur off the job for workers, tend to be less severe than injury claims that occur on other days of the week..

5 Discussion

The main focus of the previous literature on the Monday Effect has been on the idea that workers fraudulently claim that leisure injuries that occurred over the weekend were work injuries in order to access better healthcare or compensation for lost earnings. In New Zealand, healthcare access and cost are exactly the same regardless of whether the injury occurred at work or not, and compensation for lost earnings differs for only the first week. Workers thus have minimal incentive to fraudulently claim leisure injuries to be work injuries, and this mechanism is unlikely to be substantial driver of the Monday Effect we find here. In addition, a fraudulent claims story is inconsistent with two of our empirical

[15] Using this test to draw conclusions about whether injury rates are higher or treatment thresholds are lower on Mondays requires two assumptions. First, we must assume the distribution of injury severities, conditional on an injury occurring but not limiting the sample to injuries that result in a claim, is the same for injuries occurring on each day of the week. Second, we must assume that any psychological mechanism that lowers the treatment threshold for Monday injuries does not also result in a different length of lost-time for an injury of the same severity.

results: elevated claims on Tuesdays and elevated Monday claims for off-the-job sprains and strains. Moreover, the magnitude of excess Monday injuries in New Zealand, 1.7%, is substantially lower than that found in prior studies of Ontario (4.7%) and Minnesota (3.0%), where such incentives are stronger. Fraudulent claims may help explain the difference.

Another previously discussed hypothesis is ergonomics: people need time to warm up after a weekend off work, so they are more likely to strain themselves at work on a Monday. A related hypothesis is that work is more dangerous on a Monday. Both these hypotheses are work-specific, meaning that, if they drove the Monday Effect, we should not see a higher proportion of claims on a Monday for off-the-job and non-workers' injury. We should also not see a higher rate of claims on Tuesdays. In fact, we do observe elevated strains and strains on Mondays for both off-the-job injuries and non-workers' injuries, and we also observe elevated work injuries in general, and strains and sprains specifically, on Tuesdays. Ergonomics and higher work risk on Mondays are therefore unlikely to be the main drivers of the Monday Effect in New Zealand.

Turning to alternative hypotheses, we do not find evidence that the Monday Effect occurs because doctors' offices are closed on the weekend, as we also find higher claims made in hospitals on Mondays. On the other hand, we find support for the idea that the Monday Effect is caused by the impact of the weekend on individuals' physiological state. This could be because individuals are fatigued or hungover from weekend activities or because pain thresholds for seeking treatment are lower earlier in the week. We find supporting evidence for both mechanisms: injury rates decline throughout the week, while injury severity is lower on a Monday.

6 Conclusions

We make a unique contribution to the literature by looking at whether the Monday Effect in workers' compensation persists within a broader accident compensation scheme and whether off-the-job injuries, non-workers' injuries, and hospitalisations also exhibit a Monday Effect. We find that not only is the Monday Effect for strains and sprains present in the work claims data, but it is also present for off-the-job injury claims, non-worker injury claims, and injury hospitalisations. Work and off-the-job injuries on Mondays are also found to be less severe as measured by average days off work.

Unlike in the USA and Canada, the New Zealand compensation system is such that it is less likely to be susceptible to people claiming an off-the-job injury from the weekend as happening at work on the Monday. This means the Monday Effect found here is unlikely to be a result of fraudulently claiming of off-the-job injuries as occurring at work. The magnitude of the results for New Zealand are smaller than that found elsewhere (Campolieti & Hyatt, 2006; Card & McCall, 1996). This lends support to the conclusion of Martin-Roman and Moral (2016) that, in countries with an incentive to claim weekend injuries as Monday work injuries, the fraudulent claims theory is part of the explanation, but is not the full story.

Our findings suggest that the remaining part of the Monday effect is an externality caused by the existence of weekends. It appears that individuals are either fatigued from weekend activities or have lower pain thresholds earlier in the week, and this is what causes an elevated level of injury claims on Monday both at and away from work.

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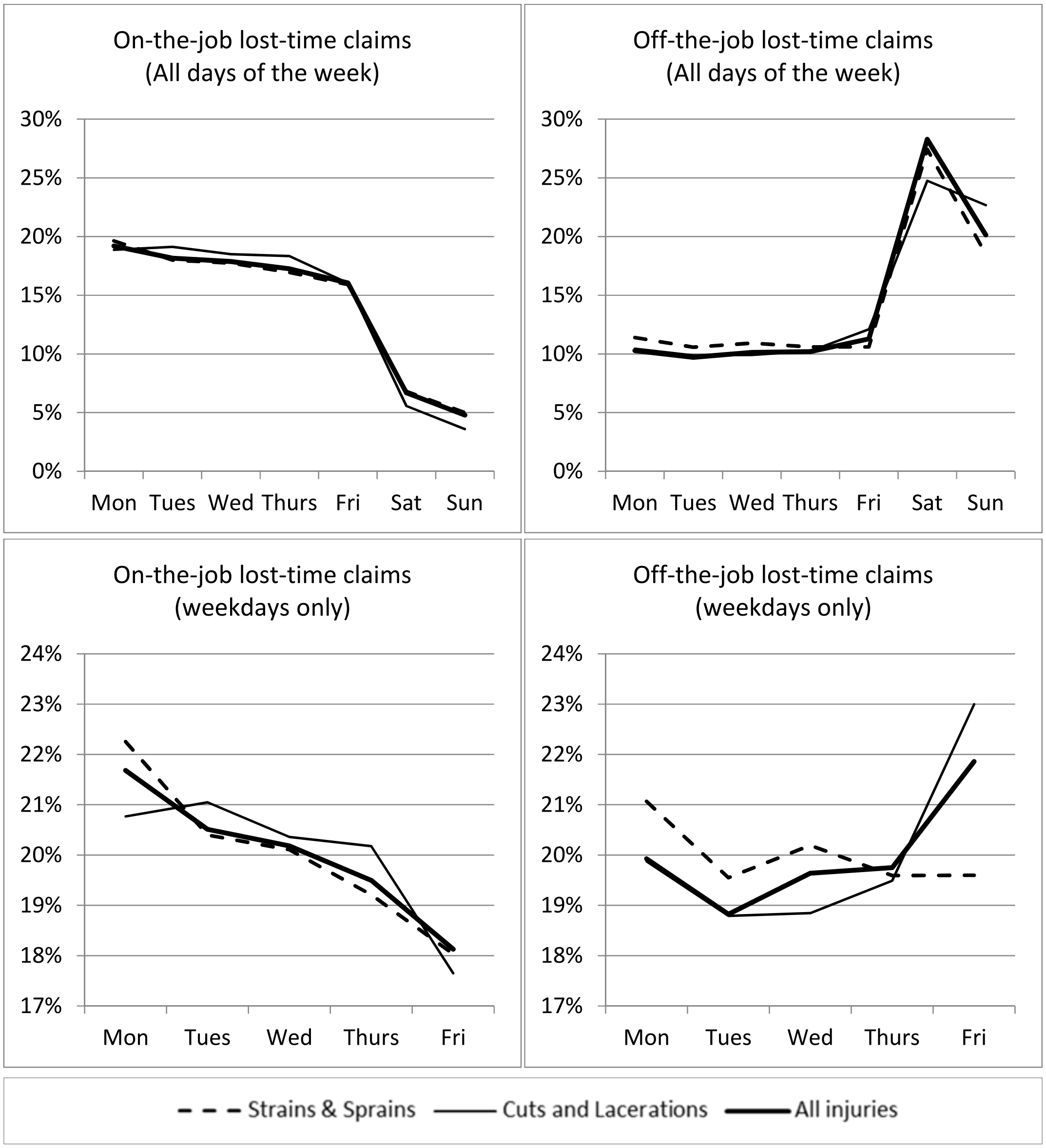
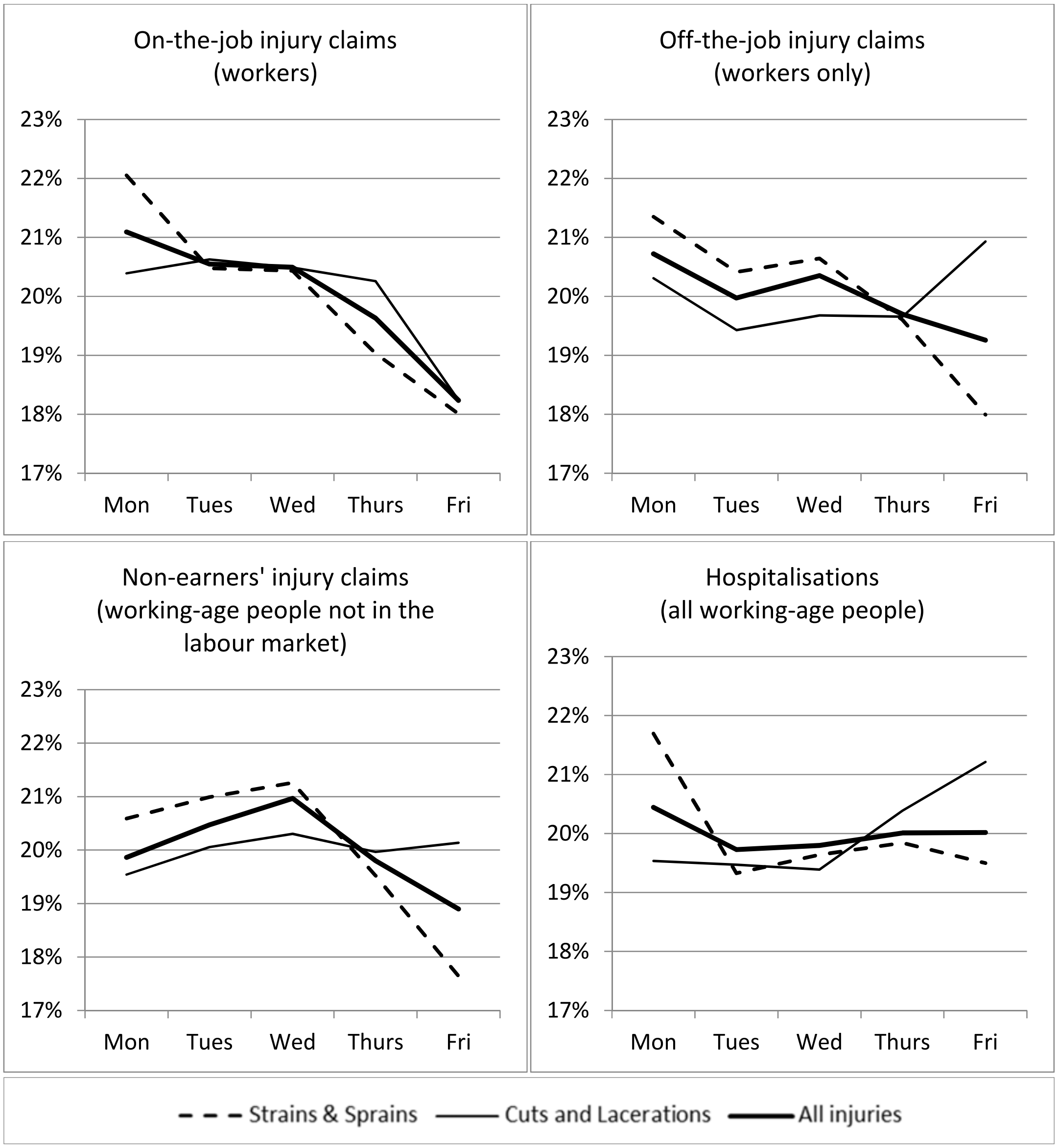
Figure 1: Distribution of lost-time injuries for workers by day of the week



Notes: 'On-the-job lost-time claims' are injuries to workers that happened at work and resulted in more than a week off work; 'off-the-job lost-time claims' are injuries that happened to workers during their leisure time and resulted in more than a week off work. Data have been confidentialized.

Figure 2: Distribution of all injuries by weekday and injury type



Notes: 'On-the-job injury claims' are injuries to workers that happened at work; 'off-the-job injury claims' are injuries that happened to workers during their leisure time; 'Non-earners' injury claims' are injuries that happened to working-age people not in the labour market (aged 15-64); 'hospitalisations' are all injuries where a working-age person was admitted to hospital (aged 15-64), irrespective of whether they are in the labour market. The data includes all injuries (claims and hospitalisations), those that resulted in time off work and those that did not. Data restricted to standard working weeks: exclude weekend injuries, the two-week Christmas and New Year's Day period and weeks with a public holiday. Data have been confidentialized.

Table 1: Summary statistics

	Work lost-time claims			*Off-the-job lost-time claims*			*Non-earners' claims*			*Hospitalisations*		
	Mon-Fri	*Mon*	*Tues-Fri*	*Mon-Fri*	*Mon*	*Tues-Fri*	*Mon-Fri*	*Mon*	*Tues-Fri*	*Mon-Fri*	*Mon*	*Tues-Fri*
Days paid	100.4	99.34	100.69	83.72	82.07	84.13	N/A	N/A	N/A	N/A	N/A	N/A
	(252.1)	(253.0)	(251.9)	(206.8)	(206.0)	(207.0)						
Injury type	0.409	0.419	0.406	0.365	0.385	0.359	0.485	0.503	0.481	0.073	0.077	0.072
Strains & Sprains	(0.492)	(0.493)	(0.491)	(0.481)	(0.487)	(0.480)	(0.500)	(0.500)	(0.500)	(0.260)	(0.267)	(0.258)
Contusions	0.062	0.060	0.063	0.056	0.056	0.056	0.122	0.118	0.123	0.031	0.031	0.031
	(0.241)	(0.237)	(0.243)	(0.229)	(0.23)	(0.229)	(0.327)	(0.322)	(0.328)	(0.174)	(0.174)	(0.174)
Cuts/ Lacerations	0.108	0.103	0.109	0.065	0.064	0.065	0.123	0.121	0.124	0.128	0.122	0.129
	(0.31)	(0.305)	(0.312)	(0.246)	(0.246)	(0.246)	(0.329)	(0.327)	(0.330)	(0.334)	(0.327)	(0.335)
Fractures	0.119	0.115	0.120	0.243	0.225	0.247	0.054	0.050	0.056	0.264	0.268	0.263
	(0.324)	(0.318)	(0.325)	(0.429)	(0.418)	(0.431)	(0.227)	(0.218)	(0.229)	(0.441)	(0.443)	(0.440)
Burns	0.010	0.009	0.011	0.009	0.009	0.010	0.016	0.016	0.016	0.014	0.013	0.014
	(0.101)	(0.092)	(0.104)	(0.097)	(0.094)	(0.098)	(0.125)	(0.124)	(0.125)	(0.116)	(0.113)	(0.117)
Dislocations	0.036	0.035	0.037	0.063	0.059	0.064	0.017	0.016	0.018	0.024	0.023	0.024
	(0.187)	(0.185)	(0.188)	(0.242)	(0.235)	(0.244)	(0.131)	(0.127)	(0.132)	(0.152)	(0.151)	(0.153)
Other	0.255	0.259	0.255	0.200	0.201	0.200	0.182	0.176	0.184	0.467	0.465	0.467
	(0.436)	(0.438)	(0.436)	(0.400)	(0.401)	(0.400)	(0.386)	(0.381)	(0.387)	(0.499)	(0.499)	(0.499)
Weekly Benefits	$376	$382	$374	$417	$424	$416	N/A	N/A	N/A	N/A	N/A	N/A
	($237)	($235)	($237)	($248)	($249)	($247)						
Age	41.33	41.19	41.36	39.56	39.98	39.45	32.81	33.2	32.71	38.12	38.14	38.12
	(13.54)	(13.5)	(13.56)	(14.52)	(14.40)	(14.55)	(16.25)	(16.26)	(16.25)	(14.56)	(14.55)	(14.57)
Male	0.759	0.770	0.756	0.605	0.595	0.607	0.461	0.443	0.465	0.593	0.593	0.593
	(0.428)	(0.421)	(0.430)	(0.489)	(0.491)	(0.488)	(0.498)	(0.497)	(0.499)	(0.491)	(0.491)	(0.491)
Observations	286,953	62,217	224,736	252,723	50,358	202,365	2,955,000	586,947	2,368,053	576,390	117,840	458,550

Note: Standard deviations are in parentheses. Work lost-time claims are injuries that happened at work with more than a week off work; Off-the-job lost-time claims are worker injuries that happened during leisure time with more than a week off work; non-earners' claims are injuries that happened to working-age people not in the labour market; hospitalisations are injuries to working-age people who were admitted to hospital. Days paid are the number of days with compensation paid for loss of earnings, injury type is based on primary injury diagnosis, and weekly benefits are a proxy for weekly income. Data restricted to standard working weeks: exclude weekend injuries, the two-week Christmas period and weeks with a public holiday. Data have been confidentialized.

Table 2: Fraction of Monday injuries across different jurisdictions

	New Zealand Data This paper			*Ontario Data Campoleti & Hyatt (2006)*			*Minnesota Data Card & McCall (1995)*		
Type of injury	N	Mean	Test Statistic	N	Mean	Test Statistic	N	Mean	Test Statistic
All	286,953	0.217	21.863***	10,702	0.247	11.297***	21,314	0.230	10.77***
Sprains & Strains	117,258	0.223	18.545***	5,282	0.258	9.633***	9,560	0.237	9.12***
Cuts & Lacerations	30,987	0.208	3.308***	1,008	0.219	1.473	2,375	0.212	1.44
Dislocations	10,458	0.211	2.770***	49	0.286	1.314	602	0.248	2.91***
Burns	2,982	0.179	-2.921	174	0.195	-0.153	443	0.192	0.43
Contusions	17,829	0.209	2.951***	1,411	0.240	3.475***	1,453	0.233	3.17***
Fractures	34,134	0.209	3.990***	623	0.238	2.204***	1,274	0.199	0.12

Note: One-sided t-tests for whether the proportion of work lost-time weekday injuries on a Monday is statistically significantly greater than 20%. Data restricted to standard working weeks: exclude weekend injuries, the two-week Christmas and New Year's Day period and weeks with a public holiday. Data have been confidentialized.

Table 3: Distribution of injuries across days of the week

	Work lost-time claims (workers)(workers)					
	All claims N=286,953		Sprains N= 117,258		Non-Sprains N= 169,695	
Day of injury	Mean	Test Statistic	Mean	Test Statistic	Mean	Test Statistic
Monday	0.217	21.9***	0.223	18.5***	0.213	13.0***
Tuesday	0.205	6.8***	0.204	3.4***	0.206	6.0***
Wednesday	0.202	2.4***	0.201	0.89	0.202	2.4***
Thursday	0.195	-6.8	0.192	-6.9	0.197	-3.2
Friday	0.181	-26	0.18	-17.5	0.182	-19.3
	Off-the-job lost-time injury claims (workers)					
Day of injury	All claims N= 252,723		Sprains N= 92,151		Non-Sprains N= 160,572	
Monday	0.199	-0.92	0.211	7.9***	0.193	-7.4
Tuesday	0.188	-15.1	0.195	-3.5	0.184	-16.4
Wednesday	0.196	-4.6	0.202	1.5*	0.193	-6.9
Thursday	0.198	-3.2	0.196	-3.1	0.198	-1.6
Friday	0.219	22.6***	0.196	-3.1	0.232	30.0***
	Non-earners' - all injury claims (working age)					
Day of injury	All claims N=2,955,000		Sprains N=1,433,016		Non-Sprains N= 1,521,984	
Monday	0.199	-5.9	0.206	17.4***	0.192	-25.7
Tuesday	0.205	20.1***	0.21	29.1***	0.2	-0.5
Wednesday	0.21	40.8	0.213	36.8***	0.207	21.0***
Thursday	0.198	-8.6	0.195	-14.5	0.201	2.0***
Friday	0.189	-48.4	0.176	-74	0.201	2.5***

Note: One-sided t-tests for whether the proportion of weekday injuries on each weekday is statistically significantly greater than 20%. Separately reported for work lost-time injury, off-the-job lost-time injury and all non-earners' injury claims. Data restricted to standard working weeks: exclude weekend injuries, the two-week Christmas and New Year's Day period and weeks with a public holiday. Non-earners' claims are restricted to working-age people aged 15-64 years. Excludes motor vehicle injuries (these are funded from a different account). Data have been confidentialized.

*** p<0.01, ** p<0.05, * p<0.1

Table 4: OLS estimates of the types of injuries that are disproportionately common on Mondays

Claim Sample:	Work Injuries	Off-the-Job Injuries	Work Injuries	Off-the-Job Injuries	Non-Earner Injuries
Dependent variable:	Lost Time Injuries	Lost Time Injuries	All claims	All claims	(working age)
Type of Injury	(1)	(2)	(3)	(4)	(5)
Sprains & Strains	0.0175***	0.0231***	0.0289***	0.0186***	0.0180***
	(0.00196)	(0.00206)	(0.000711)	(0.000492)	(0.000630)
Cuts and Lacerations	-0.00769***	0.000306	-0.00840***	-0.00158***	-0.00128***
	(0.00122)	(0.00105)	(0.000515)	(0.000296)	(0.000412)
Contusions	-0.00238**	0.000118	-0.00345***	-0.00646***	-0.00492***
	(0.000956)	(0.000978)	(0.000419)	(0.000286)	(0.000410)
Fractures	-0.00490***	-0.0172***	-0.000893***	-0.00443***	-0.00448***
	(0.00128)	(0.00179)	(0.000251)	(0.000201)	(0.000279)
Dislocations	-0.00162**	-0.00466***	-0.000472***	-0.00134***	-0.000961***
	(0.000740)	(0.00100)	(0.000169)	(0.000133)	(0.000166)
Burns	-0.00223***	-0.000542	-0.00245***	-0.000570***	-0.000283*
	(0.000380)	(0.000405)	(0.000180)	(0.000104)	(0.000157)
Controls for					
Year, gender, age, ethnicity	Yes	Yes	Yes	Yes	Yes
Industry and Occupation	Yes		Yes		
Weekly benefits	Yes	Yes			
Observations					
Number of Observations	355,377	321,297	2,790,096	5,773,641	3,727,776

Notes: This table presents the main coefficients of interest from a series of linear probability regressions in which an observation is an injury and the dependent variable is a dummy for the injury being of a specific type. Each coefficient presented comes from a separate regression. The coefficients presented are on a dummy for the injury occurring on a Monday or the first Tuesday after a public holiday. Robust individual clustered standard errors are in parentheses. Industry dummies are industry risk groups. Occupation dummies are level 1 ANZSCO. Excludes weekends and the two-week Christmas period.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 5: Public hospital data on injuries for working-age people: Distribution of injuries across days of the week and OLS estimates of injury types disproportionately common on Mondays

Distribution of injuries across days of the week						
	All claims N=576,390		Sprains N=42,036		Non-Sprains N= 534,354	
	Mean	Test Statistic	Mean	Test Statistic	Mean	Test Statistic
Monday	0.204	8.4***	0.217	8.5***	0.203	6.3***
Tuesday	0.197	-5.2	0.193	-3.5	0.198	-4.4
Wednesday	0.198	-3.9	0.196	-1.9	0.198	-3.5
Thursday	0.200	0.2	0.198	-0.8	0.200	0.4
Friday	0.200	0.4	0.195	-2.6	0.201	1.1

OLS estimates	
Dependent variable: Type of Injury	
Sprains & Strains	0.00486***
	(0.000758)
Cuts & Lacerations	-0.00613***
	(0.000948)
Contusions	0.000131
	(0.000497)
Fractures	0.00556***
	(0.00127)
Dislocations	-0.000415
	(0.000436)
Burns	-0.000998***
	(0.000339)
Controls for	
Year, gender, age, ethnicity	Yes
Industry and Occupation	No
Weekly benefits	No
Observations	
Number of Observations	721,398

Note: On the left hand side, this table presents one-sided t-tests for whether the proportion of weekday public hospital injuries on each weekday is statistically significantly different to 20%. Data restricted to working-age people aged 15-64 years. Data restricted to standard working weeks: exclude weekend injuries, the two-week Christmas and New Year's Day period and weeks with a public holiday. On the right hand side, this table presents the main coefficients of interest from a series of linear probability regressions in which an observation is an injury and the dependent variable is a dummy for the injury being of a specific type. Each coefficient presented comes from a separate regression. The coefficients presented are on a dummy for the injury occurring on a Monday or the first Tuesday after a public holiday. Robust individual clustered standard errors are in parentheses. Industry dummies are industry risk groups. Occupation dummies are level 1 ANZSCO. Excludes weekends and the two-week Christmas period. Data have been confidentialized.

*** p<0.01, ** p<0.05, * p<0.1

Table 6: Severity of lost-time injuries that occurred on Monday relative to on other days

	Dependent variable: Lost-time claim		Dependent variable: Log compensated days	
	Work	Off-the-job	Work	Off-the-job
	All claims	All claims	Lost-Time	All claims
Sample: All injuries				
Monday coefficient	0.00339***	-0.00145***	-0.0340***	-0.0564***
Standard Error	(0.000484)	(0.000227)	(0.00522)	(0.00536)
Number of observations	2,790,096	5,773,641	355,377	321,297
Sample: Sprains & Strains				
Monday coefficient	-0.000489	0.000173	-0.0528***	-0.0761***
Standard Error	(0.000692)	(0.000243)	(0.00811)	(0.00889)
Number of observations	1,224,909	3284814	145,575	117,069
Controls for				
Year, gender, age, ethnicity	Yes	Yes	Yes	Yes
Industry and occupation dummies	Yes		Yes	
Weekly benefits			Yes	Yes

Note: On the left hand side this table presents the results of OLS regressions in which the dependent variable is a dummy variable for whether an injury claim is a lost-time injury or not and an observation is an injury claim of a particular type. On the right hand side this table presents the results of OLS regressions in which the dependent variable is the log of the total number of compensated days for the injury and an observation is a lost-time injury of a particular type. From each regression, the table reports the coefficient on a dummy for the injury occurring on a Monday or first Tuesday after a public holiday. Robust standard errors are in parentheses. Controls for observable characteristics include gender (male=1), age at time of accident, ethnicity, year and weekly benefits. Industry dummies are industry risk groups. Occupation dummies are level 1 ANZSCO. Excludes weekends and the two-week Christmas period.

*** p<0.01, ** p<0.05, * p<0.1

Appendix

Table A1: Distribution of injuries across days of the week for all injury work claims and off-the-job claims

	Work injury claims						Off-the-job injury claims					
	All claims N=2,255,712		Sprains N=989,538		Other N= 1,266,174		All claims N=4,554,696		Sprains N=2,594,901		Other N=1,959,795	
Monday	0.211	40.2***	0.221	49.2***	0.203	9.6***	0.207	38.0***	0.213	53.1***	0.199	-3.9
Tuesday	0.205	20.4***	0.205	11.7***	0.206	16.8***	0.2	-1.5	0.204	16.5***	0.194	-21.7
Wednesday	0.205	18.3***	0.204	10.7***	0.205	15.0***	0.204	18.7***	0.206	25.6***	0.2	-1.1
Thursday	0.196	-13.9	0.19	-24.6	0.201	2.8***	0.197	-16.3	0.196	-16.2	0.198	-6.1
Friday	0.182	-68.6	0.18	-51.6	0.184	-46.1	0.193	-40.2	0.18	-84.2	0.209	32.0***

Note: One-sided t-tests for whether the proportion of weekday injuries on each weekday is statistically significantly greater than 20%. Separately reported for all work injury and all off-the-job injury. Data restricted to standard working weeks: exclude weekend injuries, the two-week Christmas and New Year's Day period and weeks with a public holiday. Excludes motor vehicle injuries (these are funded from a different account). Data have been confidentialized.

*** p<0.01, ** p<0.05, * p<0.1

Table A2: OLS estimates of the types of injuries that are disproportionately common on Mondays: robustness tests

Type of Injury	Lost-time work injury claims			Lost-time off-the-job injury claims		Injury hospitalisations (working age)
	(1)	(2)	(3)	(1)	(2)	(1)
Sprains & Strains	0.0168***	0.0145***	0.0198***	0.0236***	0.00752***	0.00555***
	(0.00221)	(0.00254)	(0.00224)	(0.00241)	(0.00271)	(0.000868)
Cuts & Lacerations	-0.00787***	-0.00729***	-0.00868***	0.000148	0.00318**	-0.00702***
	(0.00137)	(0.00159)	(0.00140)	(0.00121)	(0.00137)	(0.00108)
Contusions	-0.00244**	-0.00424***	-0.00245**	0.000282	-0.000163	-0.000152
	(0.00108)	(0.00126)	(0.00108)	(0.00114)	(0.00128)	(0.000566)
Fractures	-0.00578***	-0.00502***	-0.00500***	-0.0198***	-0.00573**	0.00474***
	(0.00144)	(0.00167)	(0.00141)	(0.00208)	(0.00235)	(0.00145)
Dislocations	-0.00146*	-0.00193**	-0.00231***	-0.00458***	-0.00707***	-0.000709
	(0.000838)	(0.000964)	(0.000817)	(0.00117)	(0.00134)	(0.000496)
Burns	-0.00213***	-0.00227***	-0.00244***	-0.000620	-0.000240	-0.000784**
	(0.000430)	(0.000512)	(0.000409)	(0.000470)	(0.000531)	(0.000388)
Sample restrictions						
Excludes weeks with public holidays	Yes			Yes		Yes
Includes weekends		Yes			Yes	
Excludes industries likely to work weekends			Yes			
Independent variables						
Includes dummy variables for other days of the week		Yes			Yes	
Number of Observations	286,950	401,676	272,607	252,720	627,093	576,393

Note: Each model has a different sample restriction applied. Column 1 excludes weekends and weeks with a public holiday, column 2 includes all claims including weekends and public holidays and column 3 excludes industries likely to work weekends (Agriculture, Forestry & Fishing; Retail Trade; Accommodation and Food Services). It shows the Monday Effect is robust to these different specifications. The dependent variable in each regression is a dummy variable for the type of injury. The table reports coefficient estimates for the Monday/ first Tuesday back from a public holiday dummy variable from linear probability regressions that estimate the incidence of each type of injury. Robust standard errors are in parentheses. Controls include year dummy variables, gender (male=1), age at time of accident, and ethnicity. Work and off-the-job injury claims also control for weekly benefits. Work injuries also control for industry risk groups and occupation at level 1 ANZSCO. Models 1 and 3 include a dummy variable for whether the injury occurred on a Monday or not. Model 2 includes dummy variables for each day of the week with Wednesday as the reference.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

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