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The People Behind the Wheel: Exploring the Policy Changes, Job Characteristics, and Social Stressors Driving Turnover Among California Truck Drivers

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REPORT 19-08

THE PEOPLE BEHIND THE WHEEL: EXPLORING THE POLICY CHANGES, JOB CHARACTERISTICS, AND SOCIAL STRESSORS DRIVING TURNOVER AMONG CALIFORNIA TRUCK DRIVERS

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16. Abstract

Trucking is a critical physical link in today's supply chains and global economy. The industry, however, faces serious issues that continue to plague not only trucking companies in general, but trickle down to affect their truck drivers in particular. Despite industry-wide driver shortages, as well as high driver turno-ver rates, little research has examined retention issues that surround the truck driver profession. Among the limited body of literature, extant research suggests meaningful insights may be found by investigating individual level psychologi-cal processes. Thus, the purpose of this project is to fill gaps in both manage-ment and academic understanding of psychological processes associated with California truck drivers. We performed three related studies in order to explore this topic from different angles.

The first study focuses on the stress impact from three types of policy changes: national level policy changes, California (state level) policy changes, and po-tential national level policy changes; the results offer insight as to how stress related to different types of policy change may induce feelings of job burnout (i.e. exhaustion, cynicism, and professional inefficacy) and ultimately affect job performance and intent to remain. The second study examines common job characteristics/assigned tasks associated with the truck driver profession and the ways in which truck drivers categorize these stressors (e.g., challenge or hindrance); the results of this study offer insight into the ways in which tasks af-fect burnout and, ultimately, job performance and intent to remain. The third study analyzes the differential effect of truck drivers' organization identification compared to their professional identification on their burnout and job perfor-mance; this study also examines the extent to which perception of oneself as working in a stigmatized profession, and to which being bullied on the job, have detrimental outcomes for both burnout and job performance. Importantly, all three studies contribute to the currently limited managerial and scholarly knowledge surrounding the truck driver profession. Recommendations are made aiming at assisting CA-based transportation companies in improvement of driver retention and logistical performance.

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We would also like to thank our contacts [unnamed for confidentiality purposes] for permitting us to disseminate the surveys at their facilities and interact with the truck drivers. Without their support, this study would have not have been possible.

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EXECUTIVE SUMMARY

Trucking is a critical physical link in today's supply chains and global economy, but the industry faces serious issues that continue to plague employees and companies that operate in this industry. Despite the industry-wide driver shortage problem as well as high driver turnover rates, few research studies have examined retention issues that surround the truck driver profession. Among the limited body of literature, extant research suggests meaningful insights may be found by investigating individual level psychological processes. Thus, the purpose of this project is to fill gaps in both management and academic understanding of psychological processes associated with retention and turnover of California truck drivers. We performed three related studies in order to explore this topic from different angles.

The first study explores relationships between extra-organizational job stressors, job burnout, and job performance. In their role, truck drivers are susceptible to a variety of types of role stress. Role stress is defined as "primary sources of stress that relate to the management of relationships". Regulations and policies are a specific type of stressor for truck drivers that originate from outside the organizations they work for or are providing the services. Adding to this stress are significant changes in those policies and regulations. This study incorporated three different types of policy changes: national level policy changes, California (state level) policy changes, and potential national level policy changes. Examples of national policy changes include the introduction of Hours of Service (HOS) regulations and the Electronic Logging Device (ELD) Mandate. An example of a California policy change is the introduction of ramp metering. Examples of potential national level policy changes are ones that might relate to the regulation of new innovations such as autonomous (self-driving) trucks.

Continuing with the topics of job stressors, burnout, and retention decisions of truck drivers, the second study examines the ways in which truck drivers categorize stress associated with job-related tasks (e.g., challenge or hindrance stressors). More specifically, truck drivers are boundary spanners, meaning that they must work closely with individuals both within and outside their organizations. Accordingly, theory explains that challenge stressors are perceived by boundary-spanners as contributing to one's personal growth and/or career achievements whereas hindrance stressors are perceived by boundary-spanners as constraining personal growth and/or career achievements. Theory and empirical evidence indicates that challenge stressors generally have favorable consequences whereas hindrance stressor consequences are unfavorable. Thus, for this study we examined five independent variables relating to common job characteristics/tasks associated with the truck driver profession: skill discretion; physical exertion; emotional demands; work and time pressure; and hazardous exposure.

Beyond work-related stressors, the third study examines the ways in which truck drivers often face social and relational constraints that affect their sense of self. Therefore, the focus of the third study is examining the effects both of bullying (internal or external) and of identification (professional or organizational) within the context of the truck driver profession. Occupational stigma toward truck drivers may increase the likelihood that they will experience bullying. Whether such bullying originates from co-workers (i.e.,

insiders) and/or from others encountered on the road (i.e., outsiders), it may have a strong negative effect on the drivers' well-being and behavior. Conversely, identification with one's organization and/or profession suggests a strong psychological attachment to the particular foci, meaning to their organization and/or profession. Therefore, this study tests whether professional and/or organizational identification buffers against the negative effects of occupational stigma and bullying experiences on truck drivers.

We collected survey data from 150 owner-operator truck drivers, based out of two California companies operating in the San Pedro Bay Port Complex. Longitudinal data were collected [Time 1; Time 2] for the five independent variables and for four dependent variables. The four dependent variables used in all three studies are: intent to remain at their company; job performance; citizenship behavior; and cooperative effort. The data analytic techniques performed were correlation, mediation, moderation, moderated mediation, and path analysis. Qualitative data are also reported.

The findings from the first study suggest that California policy changes have not been a source of stress for drivers; that the prospect of potential changes does not cause stress; and that stress related to national policy changes, such as the ELD mandate, are significantly related to total job burnout as well as to cynicism and exhaustion. We also found that feelings of burnout related to stress due to national policy changes were moderated by general supervisor support, with burnout being significant when general supervisor support was low. However, we did not find such a relationship between burnout and policy supervisor support. Based on this finding, we recommend managers watch out for feelings of professional inefficacy in their drivers since, as such feelings increase, job performance tends to decrease and drivers are more likely to consider leaving their company. Supervisors can incorporate the Maslach Burnout Inventory (MBI) when they do driver assessments. The MBI is a questionnaire that is used to measure levels of exhaustion, cynicism, and professional inefficacy. Supervisors should track levels over time to help identify which drivers may be started to feel more burned out.

The findings from the second study reveal that skill discretion is a challenge stressor; physical exertion, hazardous exposure, and emotional demands are all weak-to-moderate hindrance stressors that contribute to burnout; and work/time pressure is a major hindrance stressor that, without intervention, will cause unfavorable retention outcomes. While skill discretion is a challenge stressor, the four hindrance stressors have stronger negative effects that will outweigh any positive effects of skill discretion. In other words, empirically, the weight and power that is associated with these hindrance stressor coefficients outweigh the weight/power associated with skill discretion. From a managerial point of view, these results suggest skill discretion alone would not be sufficient to counteract these hindrance stressors.

The third study found that truck drivers identify more strongly with their profession than with their company, and that professional identification leads to higher levels of self-reported job performance. It also found that the strong positive relationship between bullying and burnout is more severe for those who identify strongly with their organization or profession than for those who don't. Rather than acting as a buffer against stress, strongly identifying workers experience more stress overall. Lastly, it found that perceptions of working in a stigmatized profession were not linked with burnout, but it was linked with decreased intention to remain in their company and to reduced citizenship behaviors.

I. INTRODUCTION

Ground transportation is a critical physical link in today's supply chains and global economy, but the industry faces serious issues that continue to plague employees and companies that operate in this industry. According to the American Transportation Research Institute's 2018 annual study report, Driver Shortage and Driver Retention have annually ranked as two of the top ten issues facing the industry since 2012 (with shortage and retention ranked 1 and 3, respectively). Despite the industry-wide driver shortage problem, and despite high driver turnover rates, few studies have examined retention issues that surround the truck driver profession.[1] Among this limited body of literature, extant research suggests that meaningful insights may be found by investigating individual level psychological processes.[2] Thus, the purpose of this project is to add to the psychological research on truck drivers in an effort to uncover information that will assist California companies in their hiring and retaining drivers in order to meet increasing demand. Three interrelated studies were performed for this project; each of their contributions to the literature are briefly described in the next paragraphs.

The first study explores relationships between extra-organizational job stressors, job burnout, and job performance. Truck drivers are susceptible to a variety of types of role stress. Role stress is defined as "primary sources of stress that relate to the management of relationships".[3] Regulations and policies are a specific type of stressor for truck drivers that originate from outside the organizations they work or otherwise provide services.[4] This stress can be exacerbated by significant changes to those policies and regulations. This study incorporated three different types of policy changes: national level policy changes, California (state level) policy changes, and potential national level policy changes. Examples of national policy changes include the introduction of Hours of Service (HOS) and the Electronic Logging Device (ELD) Mandate. An example of a California policy change is the introduction of ramp metering. Examples of potential national level policy changes are ones that might relate to the regulation of new innovations such as autonomous (self-driving) trucks. The first two types of policy changes involve studying the stress related to those policies that are currently in effect. The potential national level policy change refers to the stressful feelings coming from worrying about when and if this policy change will take place.

Job burnout is defined as a "psychological syndrome emerging as a prolonged response to chronic interpersonal stressors on the job".[5] Job burnout is made up of three dimensions: exhaustion, cynicism, and professional inefficacy.[5,6] *Exhaustion* encompasses occupational fatigue, physical and/or emotional, but does not necessarily link to the people that someone interacts with on the job. *Cynicism* is "an indifference or a distant attitude… to the work itself and not to the personal relationships at work".[5] Employees exhibiting cynicism are negative in their interactions, damage organizational relationships, and pull away from coworkers and projects. The *inefficacy* dimension "explicitly assesses an individual's expectations of continued effectiveness at work".[5] When they experience feelings of inefficacy, employees do not feel that they are equipped to be successful in their job. Research on job burnout generally models 'burnout' as a mediator variable between job-related antecedents, such as role stressors (e.g. policy changes), and job-related outcomes, such as psychological or performance outcomes.[2,7,8,9] The job performance outcomes considered in this study were:

task-related behavior; citizenship behavior; and cooperative effort. Intent to remain with the current company (i.e., positive cogitation) was used as a proxy for turnover intentions.

When employees have to manage a variety of relationships within and outside the company for which they provide services, they are referred to as boundary spanners. Employees in boundary spanning roles are often more susceptible to burnout because they must balance a variety of relationships and, often, competing goals and expectations.[10,11] Given that truck drivers are considered to be boundary spanners, this suggests that they may be susceptible to job burnout. We began this study expecting to find that policy changes would be positively related to the burnout factors. We also expected to find drivers with higher levels of burnout would have lower levels of job performance and intent to remain with a company.

The second study continued the investigation of boundary-spanner stressors, burnout, and retention decisions of truck drivers, the second study by examining the ways in which drivers categorize stresses associated with job-related tasks. Although much extant literature on truck driver stress generally assumes that all stress has unfavorable consequences, [1, 2] there is a theoretical basis for expecting otherwise. The transaction theory of stress suggests that one's appraisal of a stressor determines their response.[12] Therefore, following theory, stressors can be divided into two categories: challenge stressors and hindrance stressors.[13] Challenge stressors are stressors, which are perceived by boundary-spanners as contributing to personal growth and career achievements (e.g., pressure to complete tasks, time urgency, level of attention required by job or role demand, and quantitative workloads). Hindrance stressors are those, which are perceived by boundary-spanners as constraining personal growth and career achievements (e.g., situational constraints, organizational politics, hassles, and inadequate resources).[14] A body of literature has been dedicated to examining potential effects of challenge stressors and hindrance stressors (e.g., job dis/satisfaction, physical symptoms, turnover, employee loyalty, emotional exhaustion, company commitment/support, and work engagement).[13,15,16] Meta-analysis has shown that unfavorable consequences (e.g., turnover intentions) are negatively associated with challenge stressors and positively associated with hindrance stressors.[14]

This second study examines the same outcome variables as the first study; however, the independent variables of interest for this second study were ones relating to common job characteristics and assigned tasks associated with the truck driver profession. The five variables of interest were: skill discretion; physical exertion; emotional demands; work/time pressure; and hazardous exposure. Based on theory, skill discretion (i.e., degree of control over tasks and work experience) was expected to be a challenge stressor; the remaining job characteristics were expected to be hindrance stressors, and contribute to burnout and turnover intent.

The third study, beyond work-related stressors, examines the ways in which truck drivers often face social and relational constraints that may affect their sense of self. For example, truck driving is generally a lonely and isolating profession. Unlike other types of workers, who spend their day in an environment rich with social interactions, drivers operate remotely with only traces of their employer present; this may leave them feeling detached, separate and distinct from their company. Such isolation may have serious negative ramifications for

drivers' mental health.[17,18] Although their company may struggle to socialize them into its culture, drivers have a readily available alternative: their profession. Truck drivers will often develop meaningful professional identities associated with self-fulfilling characteristics surrounding masculinity, rebelliousness, and adventurousness.[19,20,21]

The drivers, however, are not the only shapers of their professional identity. Identities in the workplace are also believed to be constructed socially, by observing one's own experiences and others' actions towards oneself.[22] To the extent that such theories are valid, drivers may be compelled to act not only their own sense of identification, but also by the ways in which society at large views them. Unfortunately, these views are not always positive. Some in society view truck drivers as "dirty" or as having lower status in society, and may believe that they are both abusive and addicted to various drugs on the road, as well as subscribing to other negative stereotypes.[23, 24, 25] These stigmas may cause workers to mentally detach from their company and/or profession, enhancing stress and negatively affecting their job performance.[26] Moreover, the combination of hyper-masculinity and negative occupational stigmas towards drivers from outside has the potential to increase the likelihood that truck drivers will experience bullying, although such an outcome has not been empirically investigated. Whether bullying originates from co-workers and supervisors, or from clients or others encountered on the road, it could potentially have a strong negative effect on driver's well-being and behaviors. Taking all of the above into account, the third study investigates the possibility that strong organizational and professional identification reduce truck driver burnout and enhance job performance. This study also tests the possibility that such identification buffers negative effects of both occupational stigma, and experiences of bullying on the job from both insiders and outsiders.

II. METHODS

In order to address the mentioned gaps in the academic literature and managerial knowledge about truck driver retention, we collected longitudinal data to investigate the ways in which truck driver perceptions of such things as policy changes, job characteristics, and identity issues change over time, and ways in which those perceptions influence both job performance and retention decisions. This data collection approach offers several advantages when compared to the most common cross-sectional survey method, including capturing patterns that would not be apparent at a single point in time, and better efficiency of econometric estimates.[27] Mediation and path analysis allow for making predictions, rather than finding correlations.[28] Accordingly, this section is organized as follows. The data collection procedure and respondent demographics are reported next, followed by the survey design. Preliminary quantitative and qualitative data are then briefly discussed. Lastly, the analysis section outlines the five data analytic techniques.

DATA COLLECTION

We collected the survey data from 100 owner-operator truck drivers, based out of two California companies operating out of the San Pedro Bay Port Complex. Table 1 summarizes the data collection schedule and the number of completed surveys. As shown, 50 surveys were completed at each location during the first round of data collection (hereafter referred to as "Time 1"). Due to a considerable drop in participation for the second round of data collection (hereafter referred to as "Time 2"), survey data were collected during three visits (total of 47 at Time 2).

Table 1. Data Collection Schedule and Numbers by Facility

	Time 1 Date	Surveys Collected	Time 2 Date	Surveys Collected
Facility A	6/28/18	50	9/12/18	20
			10/4/18	7
Facility B	7/13/18	50	9/20/18	20

Note: Three online surveys were also collected but not included in the analysis due to incompleteness and/or matching issues (N = 150). A copy of the anonymous participant record sheet is provided as Appendix A.

Respondent demographics were captured at the end of Time 1 survey. Among the answered questions, average hours worked per week (90 respondents) were as follows: <40 (14.4%); =40 (24.4%); 45-55 (31.1%); 60+ (30.1%). Respondent's professional tenure (91 respondents) was: ≤5 years (4.4%); 6-10 years (10.9%); 11-15 (30.7%); 16-20 (26.5%); 21-30 (20.9%); >30 (6.6%) and organization tenure (90 respondents) was: ≤5 years (15.6%); 6-10 years (22.2%); 11-15 (28.9%); 16-20 (21.1%); 21-30 (12.2%). The sample was mostly men, with only 2.2% women (92 respondents). The respondent's ages were as follows (91 respondents): 55+ (40.6%); 45-54 (45.1%); 35-44 (12.1%); 25-34 (2.2%). The respondent's education also consisted of (91 respondents): High School (53.8%); Associates (4.4%); Bachelors (35.2%); Master's or Higher (6.6%).

SURVEY DESIGN

The survey was available in both English and Spanish. The translation procedure was performed as follows. The Principle Investigators (PIs) created the English version of the survey. Two bilingual assistants were recruited, in which one assistant translated the English version of the survey into Spanish and the second assistant translated the resulting Spanish version back into English, following the back-translation verification method.[29] The measurement scales are given in Appendix B, in which all but policy change items were pre-existing scales (or slightly modified for context purposes) and measured via 5 point or 7 point Likert scales. Institutional Review Board (IRB) approval (protocol number 18-349) in addition to company and respondent consent were documented prior to any data collection.

QUANTITATIVE DATA

Although 100 initial participants were recruited at Time 1, it proved difficult to survey the entire sample at Time 2 (45% completed the survey at Time 2). Analyses were run using Time 2 data in all three of the following sections; nonetheless, few yielded statistically significant results. A correlation test sample of 45 (or fewer in some cases) yields very little statistical power and reduces the ability of the statistical tests to detect actual relationships. Importantly, while the Time 2 data does not provide a strong test of correlational relationships, it does offer anecdotal evidence that criterion measures used at Time 1 were valid vis-à-vis their accuracy.

Table 2. Correlation Between Time 1 and Time 2 Criterion Measures

Factor	1	2	3	4	5	6	7
1. Intent to Remain [Time 1]	--						
2. Job Performance [Time 1]	.21	--					
3. Citizenship Behavior [Time 1]	.18	.55***	--				
4. Cooperativeness & Effort [Time 1]	.08	.31**	.37***	--			
5. Intent to Remain [Time 2]	.69***	-.01	-.04	-.09	--		
6. Job Performance [Time 2]	.35*	.21	.11	.05	.40**	--	
7. Citizenship Behavior [Time 2]	.10	-.08	.10	-.21	.31*	.27	--
8. Cooperativeness & Effort [Time 2]	.29	-.01	-.01	-.02	.37**	-.02	.16

Note: Samples size varies for each correlation (respondents chose to leave certain question blank), lowest sample size per correlation is 43 (for Time 2 correlations) and highest is 88 (for Time 1 inter-correlations).* The reliability scores are included as the diagonals of this correlation matrix *(*$p < .05$, ** $p < .01$, *** $p < .001$).

Table 2 reveals that intent to remain at Time 1 has a very strong and highly statistically significant correlation with intent to remain at Time 2. This suggests that correlations between predictor variables and intent to remain at Time 1 may also reflect a relationship between predictors and intent to remain at Time 2. None of the other dependent variables had statistically significant correlations between their values at Time 1 and at Time 2; this suggests that any correlations between predictors and criterion measures at Time 1 may not continue to hold across time. Note that citizenship behavior was not included in any of the following Time 2 correlation tables due to a negative reliability coefficient, indicating that the variable may not be reliable in capturing what was intended or its meaning in this sample.

QUALITATIVE DATA

While the PIs were on-site administering surveys, truck drivers would occasionally, unprompted, offer verbal feedback about work stressors. On at least three occasions, one or more drivers mentioned slowdowns at the Port of Long Beach (a primary destination for many of the drivers) were among the most stressful parts of their job. Drivers complained that they would sit and wait in lines at the Port for long stretches of time (up to hours), which limited the number of runs they could make in a day and therefore reduced their financial earnings. Several drivers at both companies also mentioned extremely poor treatment they receive while at the Port, with Port coordination workers yelling and disrespecting them as they guided the drivers to their destination. Any rude comments returned in kind would result in further delays. The truck drivers believe that Port workers purposefully cause delays. Below are Spanish-to-English translated comments that were collected in an open-ended question at the end of the disseminated survey (i.e., “Is there anything you want the researchers to know about being a truck driver?”). A loose translation is provided in [brackets].

- Una gran responsabilidad. [It is a big responsibility]

- Nosotros somos mall tados los puertos (Los) - por la union que trabajan entos los puertos! [We have bad relations with The Long Beach and Los Angeles Ports. Because of the labor union at the Ports!]

- Es uno profesion my delicado y peligrosa y aveces los demas conductores tieres cordado con nosotros. [This is a very delicate and dangerous profession, and sometimes the other drivers disagree with us]

- Como chofer del puerto requiero una mejor asistencia a un mejor servicio de porte de los poertos de LA y LB. [As someone who drives to The Ports, I require more help interacting with the LA and Long Beach Ports]

- Con respecto al trabajo de puertos necesitamos que excita control sobre el sistema operario. [With respect to our work at The Ports, we need more control over how their system operates]

- Como chofen del puerto necesito mas asistencia and respecto para mi persona. [As someone who drivers to The Port, I need help getting them to respect me]

- Como chofer del puerto mas asistencia y respecto al chofer que es mi persona. [As someone who drives to The Port, I need assistance in having them respect drivers like me]

- Como chofer de los puertos nesecitamos mas respecto y asistencias. [As someone who drives to The Port, I need more help and respect]

ANALYSIS TECHNIQUES

We performed five data analysis approaches for the purpose of this final report.

First, we conducted basic correlation analysis using the SPSS software platform. Correlation analysis measures the relationship between two quantitative variables. Positive correlations suggest that truck drivers who scored higher than others on a measure are also likely score higher than others on the correlated measure; negative correlations suggest that drivers scoring higher than other truck drivers on a measure are likely to score lower on the correlated measure.

Second, we performed moderation analysis using SPSS software and Microsoft Excel. Moderation analysis determines whether the relationship between two variables is only exhibited under certain conditions of the moderating variable.[30] In the following three sections, interaction figures are provided for all moderation analysis yielding statistically significant results.

Third, we performed mediation analysis using the SPSS software platform. Mediation analysis explores the extent to which a third variable explains the correlation between two other variables; such a relationship between those two variables is called an “indirect effect”. A statistically significant mediation suggests that the third variable explains the correlation between two variables. For example, mediation analysis tests whether Variable A is correlated with Variable C, only because truck drivers with higher scores on Variable A also score higher on Variable B, which itself is correlated with Variable C.

Fourth, we conducted moderated-mediation analysis using the SPSS software.[31] Moderated-mediation analysis combines the previous two methods, by testing the extent to which the value of an entire sequence of indirect effects (Variable A → Variable B → Variable C) depends on the value of a fourth variable (Variable D).[32] The statistical significance of the sequence of indirect effects (A → B → C) is tested at multiple ‘levels’ of the moderating variable (D). Such a relationship, whereby an indirect effect is present only conditional on the value of a fourth variable, is fittingly referred to as a “conditional indirect effect”. The sequences of indirect effects are examined at values equivalent to one standard deviation above, and one standard deviation below, the mean of Variable D.

Finally, we performed path analysis using MPlus software. Path analysis allows researchers to test the effect of multiple correlations simultaneously.[33] In path analysis, the correlation between two variables can be examined while accounting for the effect of other variables on that relationship. Moreover, the total effect of a number of variables on a particular focal variable can be computed, allowing us to determine which particular variables account for the most variance in the focal variable.

III. EFFECTS OF POLICY CHANGES ON DRIVERS

This section presents the findings from the first study, which was focused on the stress impact from three types of policy changes: national level policy changes, California (state level) policy changes, and potential national level policy changes. These findings offer insight into ways in which different types of policy change related stress may induce feelings of job burnout (exhaustion, cynicism, and professional inefficacy) and ultimately affect job performance and intent to remain.

Table 3. Descriptive Statistics for Policy Changes

Factor	Mean	Number of Respondents
1. National Policy Change Stress	3.62	96
2. California Policy Change Stress	3.39	95
3. Future Policy Change Stress	1.02	96
4. Supervisor Support (General)	2.98	93
5. Supervisor Support (Policies)	3.10	93
6. Burnout: Inefficacy	2.20	96
7. Burnout: Exhaustion	3.49	96
8. Burnout: Cynicism	3.02	96
9. Burnout: Total Score	2.84	96
10. Intent to Remain [Time 1]	4.99	93
11. Job Performance [Time 1]	5.60	90
12. Citizenship Behavior [Time 1]	5.04	90
13. Cooperative Effort [Time 1]	4.33	88
14. Intent to Remain [Time 2]	5.10	46
15. Job Performance [Time 2]	5.83	46
16. Citizenship Behavior [Time 2]	4.94	46
17. Cooperative Effort [Time 2]	4.17	46

All item measures and the scales are available in Appendix B. The mean results suggest that changes in national policies are perceived as being more stressful than California state level policies. The prospect of potential future policy changes seems to be the least stressful. Psychologically, potential policy changes related to new technology such as self-driving trucks may seem too far in the future to worry about now. Given the qualitative responses, some drivers do not believe their job will be impacted by new technologies. Future research could investigate whether this is a coping mechanism, denial, lack of information, or their assessments are correct. Exhaustion has the highest mean for burnout (3.49), with cynicism having the next highest for burnout (3.02). Based on the scale, response of 3 or higher means respondents feel exhausted, emotionally or physically, at least once a month. Inefficacy has a lower mean (2.20), with the respondents reporting they experience feelings of professional inefficacy a few times a year. The larger mean for intention to remain (4.99) suggests these respondents are likely to stay with their company, which is surprising given this profession's high turnover rate.

Table 4. Correlation Matrix of Policy Changes

Factor	1	2	3	4	5	6	7	8	9	10	11	12	13
1. National Policy Change Stress	(.89)												
2. California Policy Change Stress	.07	--											
3. Future Policy Change Stress	.10	.03	--										
4. Supervisor Support (General)	-.20*	-.02	-.17	(.75)									
5. Supervisor Support (Policies)	-.05	.05	-.09	.71***	(.85)								
6. Burnout: Inefficacy	.13	.04	.08	-.25*	-.20*	(.63)							
7. Burnout: Exhaustion	.24*	-.09	.01	-.17	-.15	.11	(.87)						
8. Burnout: Cynicism	.27**	.13	-.01	-.19	-.14	.12	.66***	(.67)					
9. Burnout: Total Score	.30**	.00	.03	-.27**	-.21*	.52***	.87***	.78***	(.82)				
10. Intent to Remain [Time 1]	-.09	.12	-.10	.54***	.57***	-.28**	-.17	-.15	-.26*	(.71)			
11. Job Performance [Time 1]	.02	-.12	.02	.00	-.05	-.40***	.10	.04	-.09	.21*	(.84)		
12. Citizenship Behavior [Time 1]	-.07	-.07	-.11	.03	-.10	-.37***	-.14	-.19	-.30**	.18	.56***	(.48)	
13. Cooperative Effort [Time 1]	-.10	-.10	-.14	.09	.04	-.41***	.03	-.08	-.18	.08	.31**	.37***	(.62)

Note: Samples size varies for each correlation (respondents may have chosen to leave certain question blank), lowest sample size per correlation is 87 and highest is 96; survey scale reliability scores are listed in parentheses in the diagonal; * $p < .05$, ** $p < .01$, *** $p < .001$.

Neither California policy stress nor the prospect of potential future policy stress exhibited statistically significant correlations with the burnout factors or criterion variables (intent to remain or job performance); therefore, no mediation tests were conducted. National policy stress was significantly linked to the criterion variables; the interactions were tested and are reported next. Also notable is the statistically significant relationship between inefficacy and the outcome variables (intent to remain, job performance, citizenship behavior, and cooperative effort). As California truck drivers experience higher levels of inefficacy, their job performance tends to decrease and turnover becomes more likely. While these findings did not find a relationship between policy change stress and inefficacy, the results do reveal that inefficacy is negatively related to job performance.

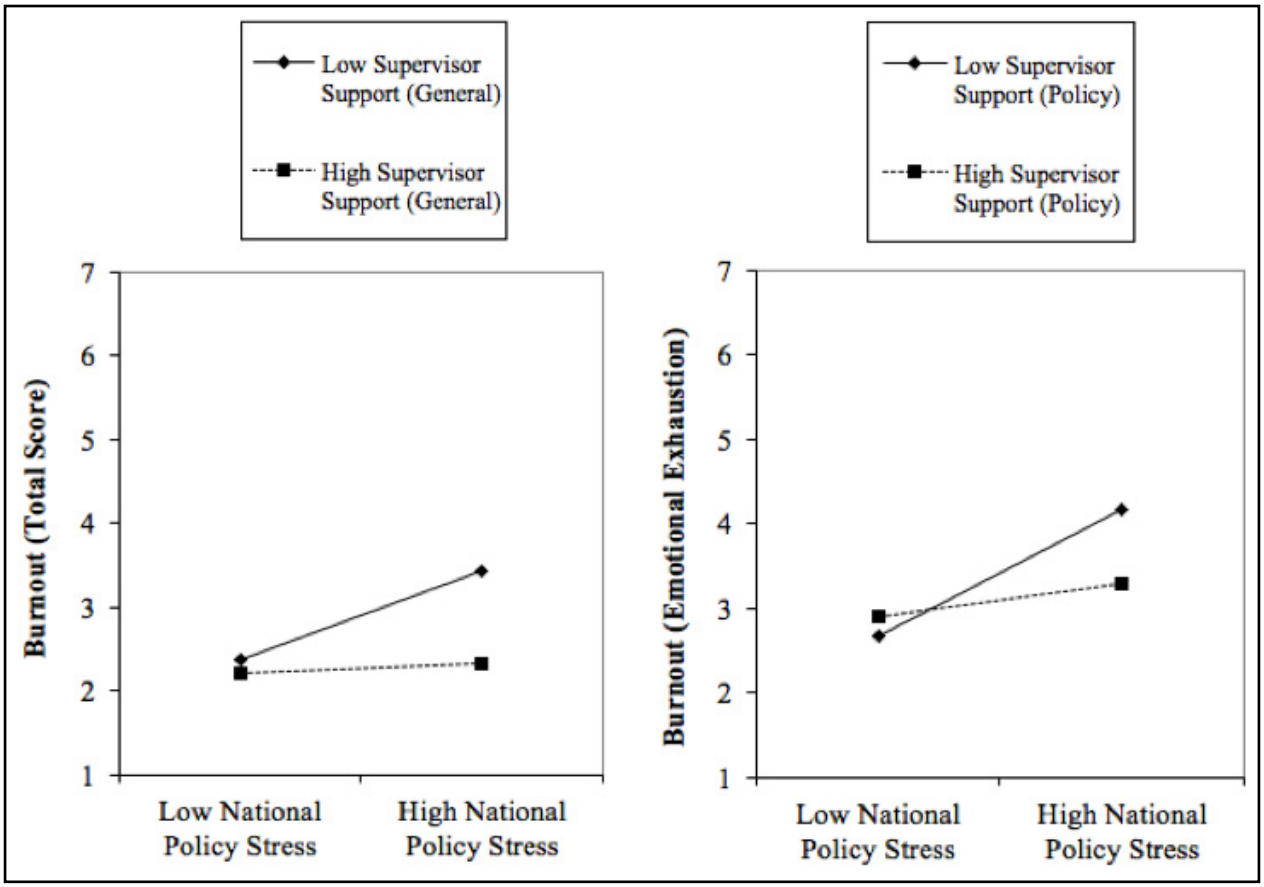

Figure 1. Interaction Between Policy Change Stress & Supervisor Support

Note: N = 91.

Literature has emphasized the importance of company relationships in impacting driver's intention to stay.[4] The most common being the dispatcher-driver relationship.[34, 35] This study supports the importance of a supportive supervisor. There was a significant interaction between national policy change stress and general supervisor support in their effect on total burnout. Simple slopes analysis reveals that the relationship between national policy change stress and total burnout was only significant when general supervisor support was low; see Figure 1. Similar moderating effects were found when predicting exhaustion and cynicism, yet not when predicting inefficacy. Interestingly, the relationships between national policy change stress and total burnout, between national policy change stress and

inefficacy, and between national policy change stress and cynicism were not moderated by supervisor support for *policy* changes. Supervisor support for policy changes deals with training and information sharing related to policies or regulations that impact how drivers do their job. Only the relationship between national policy change stress and exhaustion was significantly moderated by supervisor support for policy changes. The interaction is approximately the same nature at total burnout, with the link between national policy change stress and exhaustion only being statistically significant when supervisor support for policy change was low (slope = 0.31, t = 2.92, $p < .01$); R^2 was lower at 0.12 ($p < .05$). The negative relationship between national policy change stress and intent to remain was mediated by total burnout at statistical significance levels (indirect effects = -0.05, LL95CI = -0.10, UL95CI = -0.004, $R^2 = 0.07$, $p < 0.10$). This mediation, however, was not conditional based on general supervisor support.

Table 5. Mediation Analysis of Policy Changes Stress

	Criterion variables	
	Total Burnout	**Intent to Remain**
Predictor variables	β (SE)	β (SE)
National Policy Stress	.14** (.04)	-.01 (.06)
Total Burnout		-.34* (.15)
N = 93; Model R^2	.12**	.07
	Total Burnout	**Citizenship Behavior**
	β (SE)	β (SE)
National Policy Stress (N)	.13** (.04)	-.01 (.05)
General Supervisor Support (S)	-.35** (.13)	
N x S	-.08 (.05)	
Total Burnout		-.23* (.10)
N = 90; Model R^2	.24***	.14**

Analysis of the Indirect Effect of National Policy Stress on Citizenship Behavior Via Total Burnout

Level of Supervisor Support (General)	**Indirect Effect**	**Bootstrapped Confidence Intervals (Lower, Upper)**
High (+1 SD)	-.01	-.06, .01
Mean	-.03	-.07, -.003
Low (-1 SD)	-.04*	-.09, -.004

Note: Sample size for first analysis was 93; Sample size for second analysis was 90; Standard errors are provided in parentheses for each coefficient; * $p < .05$, ** $p < .01$, *** $p < .001$.

The negative relationship between national policy change stress and citizenship behavior was also mediated by total burnout at a level of statistical significance (indirect effects = -0.03, LL95CI = -0.07, UL95CI = -0.004, $R^2 = 0.14$, $p < 0.01$). Mediation was not found for any of the facets of burnout. The mediating effect of total burnout on the link between national policy stress and citizenship behavior, however, was statistically significant when general supervisor support was either average (indirect effects = -0.03, LL95CI = -0.06, UL95CI = -0.002) or low (indirect effects = -0.04, LL95CI = -0.09, UL95CI = -0.003), but not when general supervisor support was high. No other arrangement between national policy stress, total burnout, and general supervisor support yielded statistically significant mediation. The policy stressor variables were examined in regard to connection with the time-lagged outcomes.

Table 6. Correlation Matrix of Policy Changes (Time 2 Measures)

Factor	1	2	3	4	5	6	7	8	9	10	11	12
1. National Policy Stress	(.89)											
2. California Policy Stress	.07	--										
3. Future Policy Stress	.10	.03	--									
4. Supervisor Support (General)	-.20*	-.02	-.17	(.75)								
5. Supervisor Support (Policies)	-.05	.05	-.09	.71***	(.85)							
6. Burnout: Inefficacy	.13	.04	.08	-.25*	-.20*	(.63)						
7. Burnout: Exhaustion	.24*	-.09	.01	-.17	-.15	.11	(.87)					
8. Burnout: Cynicism	.27**	.13	-.01	-.19	-.14	.12	.66***	(.67)				
9. Burnout: Total Score	.30**	.00	.03	-.27**	-.21*	.52***	.87***	.78***	(.82)			
10. Intent to Remain [a] [Time 2]	-.06	.32*	-.07	.27	.40**	-.05	-.04	-.07	-.07	(.71)		
11. Job Performance [a] [Time 2]	.18	.19	-.21	.02	.12	.05	.04	.20	.12	.40**	(.82)	
12. Cooperative Effort [a] [Time 2]	-.11	.14	-.03	.26	.37*	.07	-.06	-.12	-.05	.37**	-.02	(.35)

Note: Samples size varies for each correlation (respondents may have chosen to leave certain question blank), lowest sample size per correlation is 87 and highest is 96; survey scale reliability scores are listed in parentheses in the diagonal; [a] All correlations at Time 2 have sample size of 45 or 46 due to low response rate at Time 2; * $p < .05$, ** $p < .01$, *** $p < .001$.

Due to the small sample size at Time 2, there were very few statistically significant relationships with the Time 1 variables regarding policy stress. Interestingly, we found a statistically significant positive correlation between the California policy changes stress and intent to remain. This result indicates California truck drivers have adjusted to policy changes and perceive it as a normal part of their job.

IV. EFFECTS OF JOB CHARACTERISTICS ON DRIVERS

This section discusses the second study findings, which examines job characteristics/ tasks and ways in which truck drivers categorize these stressors as being challenge or hindrance stressors. The results also offer insight into the ways in which tasks affect burnout and, ultimately, job performance and intent to remain.

Table 7. Descriptive Statistics for Job Characteristics

Factor	Mean	Number of Respondents
1. Skill Discretion	4.80	93
2. Physical Exertion	4.58	82
3. Work and Time Pressure	3.73	91
4. Hazardous Exposure	5.25	92
5. Emotional Demands	4.80	93
6. Burnout: Inefficacy	2.20	96
7. Burnout: Exhaustion	3.49	96
8. Burnout: Cynicism	3.02	96
9. Total Burnout	2.84	96
10. Intent to Remain	4.99	93
11. Job Performance [Time 1]	5.60	90
12. Citizenship Behavior [Time 1]	5.04	90
13. Cooperative Effort [Time 1]	4.33	88
14. Intent to Remain [Time 2]	5.10	46
15. Job Performance [Time 2]	5.83	46
16. Citizenship Behavior [Time 2]	4.94	46
17. Cooperative Effort [Time 2]	4.17	46

Simple statistics on the variables of interest reveal that among the job characteristics, hazardous exposure is most common (mean = 5.25), followed by skill discretion and emotional demands (mean = 4.80), then physical exertion (mean = 4.58), and finally by work and time pressure (mean = 3.73).

Table 8. Correlation Matrix of Job Characteristics

Factor	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Skill Discretion	(.51)												
2. Physical Exertion	-.11	(.36)											
3. Work and Time Pressure	-.15	.15	(.25)										
4. Hazardous Exposure	.06	.33***	.31**	(.90)									
5. Emotional Demands	.19	.15	.22*	.48***	(.87)								
6. Burnout: Inefficacy	-.21*	.11	.21*	.09	.09	(.63)							
7. Burnout: Exhaustion	-.22*	.15	.35***	.36***	.46***	.11	(.87)						
8. Burnout: Cynicism	-.22*	.16	.20	.19	.30**	.12	.66***	(.67)					
9. Burnout: Total Score	-.28*	.19	.37***	.32**	.42***	.52***	.87***	.78***	(.82)				
10. Intent to Remain [Time 1]	.17	-.13	-.28**	-.14	-.01	-.28**	-.17	-.15	-.26*	(.71)			
11. Job Performance [Time 1]	.20*	-.13	-.20	-.04	.13	-.40***	.10	.04	-.09	.21*	(.84)		
12. Citizenship Behavior [Time 1]	.30**	-.01	.14*	.01	.13	-.37***	-.14	-.19	-.30**	.18	.56***	(.48)	
13. Cooperative Effort [Time 1]	.12	-.05	-.16	.08	.12	-.41***	.03	-.08	-.18	.08	.31**	.37***	(.62)

Note: Samples size varies for each correlation (respondents may have chosen to leave certain question blank), lowest sample size per correlation is 85 and highest is 96; survey scale reliability scores are listed in parentheses in the diagonal; * $p < .05$, ** $p < .01$, *** $p < .001$.

Examination of Table 8 yields insightful findings regarding the effects of job characteristics on truck driver outcomes. The correlational evidence suggests that among the job characteristics surveyed, skill discretion is the only challenge stressor, as indicated by its negative correlations with all four burnout constructs (i.e., inefficacy, exhaustion, cynicism, total). Moreover, skill discretion is positively associated with both job performance and citizenship behavior. The study results suggests that work and time pressure is a hindrance stressor, as indicated by its positive correlations with inefficacy, exhaustion, total burnout, as well as, negatively correlated with intent to remain. The results reveal that while both hazardous exposure and emotional demands are hindrance stressors (indicated by their positive correlations with burnout), neither has an effect on job performance or intent to remain at their company. Lastly, physical exertion fails to have a significant effect, and therefore may not be a stressor as it relates to the current study.

The above results involving skill discretion warrant additional analysis. Specifically, skill discretion, the only challenge stressor that was found, empowers and energizes truck drivers and could potentially offset the effects of burnout. The extent to which demands translate into burnout and then affect other work-related outcomes is examined below.

Table 9. Mediation Analysis of Job Characteristics

	Criterion variables	
	Total Burnout	**Citizenship Behavior**
Predictor variables	β (SE)	β (SE)
Skill Discretion	-.36** (.12)	.24 (.12)
Total Burnout		-.19 (.10)
N = 89; Model R^2	.16**	.17**
Indirect Effect of Skill Discretion on Citizenship Behavior via Burnout	Indirect effect	LL95CI, UL95CI
	.07	.002, .160
	Total Burnout	**Citizenship Behavior**
	β (SE)	β (SE)
Hazardous Exposure	.20** (.07)	.04 (.05)
Total Burnout		-.27* (.10)
N = 88; Model R^2	.17*	.14*
Indirect Effect of Hazardous Exposure on Citizenship Behavior via Burnout	Indirect effect	LL95CI, UL95CI
	-.06	-.12, -.01

Note: Sample size for first analysis was 89; Sample size for second analysis was 88; Standard errors are provided in parentheses for each coefficient; * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 9 reveals two statistically significant mediation pathways for the truck driver job characteristics. First, correlation evidence suggests that the positive relationship between skill discretion and citizenship behavior is mediated by reduced total burnout at a statistically significant level (indirect effect = 0.07, LL95CI = 0.002, UL95CI = 0.16, $R^2 = 0.17$, $p < .01$). In other words, truck drivers who experience greater control over their job tasks and work experience (i.e., high skill discretion) compared to others, also tend to engage in more citizenship behavior at their workplace, due to decreased levels of burnout. Second, the negative relationship between hazardous exposure and citizenship behavior is mediated

by increased total burnout at a statistically significant level (indirect = -0.06, LL95CI = -0.12, UL95CI = -0.01, R^2 = 0.14, p < .05). In other words, truck drivers who experience heightened hazardous exposure are less likely to engage in citizenship behavior at a workplace, according to the mediation model, because they are burned out.

Taking into consideration the strong relationship between truck driver job characteristics on total burnout, a fine-grained analysis was performed. More specifically, a path analysis was conducted in order to determine which job characteristics had the most robust effects on various facets of total burnout. The below Figure 2 illustrates the model and reports the analysis findings.

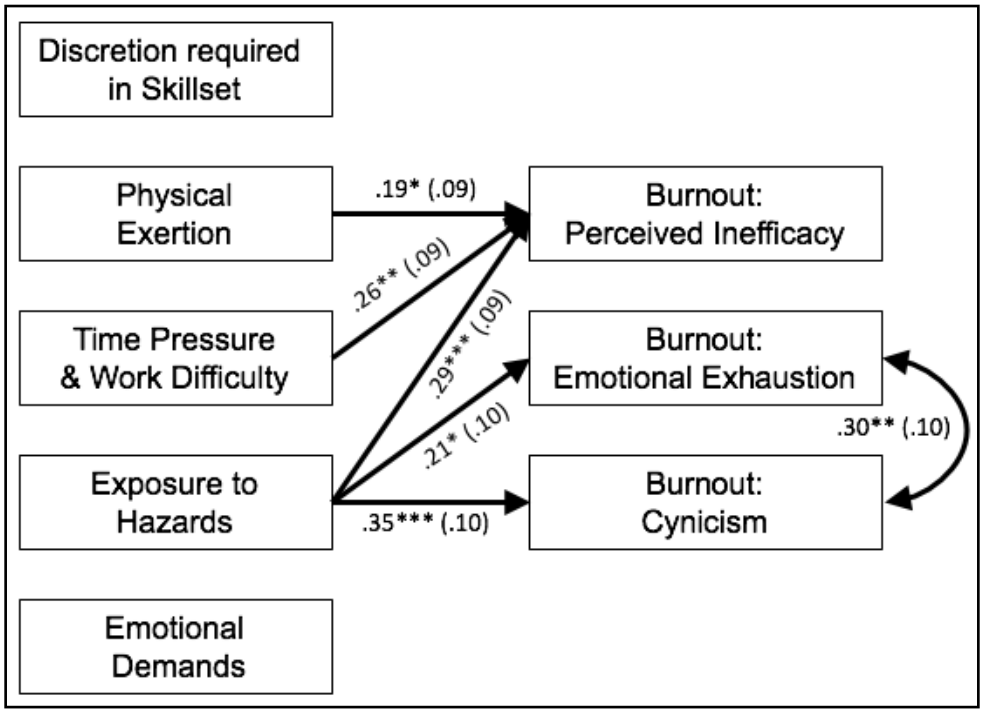

Figure 2. Competing Effects of Job Characteristics on Burnout

Note: N = 88; Standard errors are given in parentheses for each coefficient; * p < .05, ** p < .01, *** p < .001.

What is particularly interestingly is that after accounting for all other job characteristics, skill discretion (as well as emotional demands) fails to have any significant effect on the three facets of total burnout. This is not to say skill discretion and/or emotional demands yield no effect; rather, it means that these factors must be outweighed in importance by the other job characteristics in the minds of truck drivers. Most notably, hazardous exposure was the strongest and robust covariate of each facet of burnout. Equally importantly, the perceived inefficacy facet of burnout was associated with multiple job characteristics, which may indicate pervasive levels of impaired perceptions of competence among drivers with burdensome job characteristics (although future research is needed to verify such a claim). In sum, the hazards of working as a truck driver are psychologically taxing in many ways, with physical exertion, time pressure, work difficulty, and exposure to hazards yielding particularly strong associations with driver burnout.

All in all, these findings reveal that skill discretion is a challenge stressor, which is positively and directly associated with positive work outcomes (performance, citizenship) as well as skill discretion is linked with increased citizenship via reduced burnout. Physical exertion, hazardous exposure, and work/time pressure are each weak-to moderate hindrance stressors that contribute to the facets and total burnout score, but only burnout as a result of hazardous exposure seems to have any relationship with an outcome (i.e., citizenship behavior). Independently, however, work/time pressure is a major hindrance stressor that exhibits a direct negative relationship with intent to remain, regardless of burnout.

Table 10. Correlation Matrix of Job Characteristics (Time 2 Measures)

Factor	1	2	3	4	5	6	7	8	9	10	11	12
1. Skill Discretion	(.51)											
2. Physical Exertion	-.11	(.36)										
3. Work and Time Pressure	-.15	.15	(.25)									
4. Hazardous Exposure	.06	.33***	.31**	(.90)								
5. Emotional Demands	.19	.15	.22*	.48***	(.87)							
6. Burnout: Inefficacy	-.21*	.11	.21*	.09	.09	(.63)						
7. Burnout: Exhaustion	-.22*	.15	.35***	.36***	.46***	.11	(.87)					
8. Burnout: Cynicism	-.22*	.16	.20	.19	.30**	.12	.66***	(.67)				
9. Burnout: Total Score	-.28*	.19	.37***	.32**	.42***	.52***	.87***	.78***	(.82)			
10. Intent to Remain[a] [Time 2]	.09	-.26	-.07	-.11	-.04	-.05	-.04	-.07	-.07	(.71)		
11. Job Performance[a] [Time 2]	.29	-.03	-.30*	.24	.23	.05	.04	.20	.12	.40**	(.82)	
12. Cooperative Effort[a] [Time 2]	.05	-.09	.16	-.11	-.13	.07	-.06	-.12	-.05	.37**	-.02	(.35)

Note: Samples size varies for each correlation (respondents may have chosen to leave certain question blank), lowest sample size per correlation is 85 and highest is 96; survey scale reliability scores are listed in parentheses in the diagonal; [a] All correlations at Time 2 have sample size of 45 or 46 due to low response rate at Time 2; * $p < .05$, ** $p < .01$, *** $p < .001$.

Examination of Table 10 also yields insightful findings regarding the effects of job characteristics on truck driver outcomes. Whereas skill discretion linked with job performance when measured at Time 1, skill discretion failed to have any significant effect on job performance measured at Time 2. Likewise, the perceived inefficacy facet of burnout was not correlated with intent to remain, job performance, or cooperative effort when each was measured at Time 2. Interestingly, the only job characteristic measured at Time 1 that impacted a Time 2 outcome was work time and pressure, which exhibited a statistically significant and negative correlation with job performance at Time 2. The relationship between skill discretion and job performance was close to being statistically significant—perhaps a low Time 2 response rate was responsible (need greater statistical power to detect effect).

V. EFFECTS OF IDENTITY ISSUES ON DRIVERS

As previously acknowledged, truck driving is a unique profession and drivers face identity-related issues while on the job. Therefore, the third study analyzes differential effects of truck drivers' organization identification and professional identification on burnout and job performance. This section also examines the extent to which perceiving oneself as working within a stigmatized profession has an effect on burnout and job performance as well as any effects of being bullied on the job.

Table 11. Descriptive Statistics for Identity Factors

Factor	Mean	Number of Respondents
1. Stigma Toward Profession	2.40	94
2. Internal Bullying	2.34	91
3. External Bullying	2.90	62
4. Organizational Identification	3.83	89
5. Professional Identification	4.27	70
6. Burnout: Inefficacy	2.20	96
7. Burnout: Exhaustion	3.49	96
8. Burnout: Cynicism	3.02	96
9. Burnout: Total Score	2.84	96
10. Intent to Remain [Time 1]	4.99	93
11. Job Performance [Time 1]	5.60	90
12. Citizenship Behavior [Time 1]	5.04	90
13. Cooperative Effort [Time 1]	4.33	88
14. Intent to Remain [Time 2]	5.10	46
15. Job Performance [Time 2]	5.83	46
16. Citizenship Behavior [Time 2]	4.94	46
17. Cooperative Effort [Time 2]	4.17	46

As shown in Table 11, drivers on average disagreed slightly with statements that indicate that others view them as having negative personal characteristics (i.e., perceptions of occupational stigma), and reported experiencing bullying incidents only once or twice a year. Although even weak perceptions of stigma and infrequent bullying may still detract from truck driver's well-being to a certain extent, it does not appear that truck drivers are facing daily bullying nor feeling decidedly derogated by members of society. Moreover, outsider bullying was reported as more common than bullying from insiders (supervisors and/or co-workers). Sampled drivers reported experiencing bullying from both sources between one and two times per year for each, leaning more towards twice per year for bullying from outsiders. In terms of identification, respondents experienced stronger identification, and thus inclusiveness and commitment, to their profession (mean = 4.27) than to their organization (mean = 3.83). Their mean organizational identification was closer to a neutral point, suggesting little attachment to their organization but not aversion. The respondents were, on average, closer to "slightly agree" when responding to statements about their identification with their profession.

Table 12. Correlation Matrix of Identity Factors

Factor	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Stigma Toward Profession	(.34)												
2. Internal Bullying	.20	(.92)											
3. External Bullying	.24	.64***	(.92)										
4. Organizational Identification	-.10	.29**	.16	(.72)									
5. Professional Identification	.10	.38**	.45***	.83***	(.70)								
6. Burnout: Inefficacy	.07	.26*	.26*	.05	-.07	(.63)							
7. Burnout: Exhaustion	.17	.39***	.51***	.35***	.35**	.11	(.87)						
8. Burnout: Cynicism	.11	.40***	.56***	.35***	.40***	.12	.66***	(.67)					
9. Burnout: Total Score	.18	.47***	.58***	.33***	.30*	.52***	.87***	.78***	(.82)				
10. Intent to Remain [Time 1]	-.27**	-.28**	-.27*	.10	.03	-.28**	-.17	-.15	-.26*	(.71)			
11. Job Performance [Time 1]	*.12	.03	-.06	.12	.30*	-.40***	.10	.04	-.09	.21*	(.84)		
12. Citizenship Behavior [Time 1]	-.29**	-.26*	-.24	.05	.11	-.37***	-.14	-.19	-.30**	.18	.56***	(.48)	
13. Cooperative Effort [Time 1]	-.18	-.18	-.14	.09	.16	-.41***	.03	-.08	-.18	.08	.31**	.37***	(.62)

Note: Samples size varies for each correlation (respondents may have chosen to leave certain question blank), lowest sample size per correlation is 86 and highest is 96, with the exception of outsider bullying (sample size as low as 57 in a correlation) and professional identification (sample size as low as 57 in a correlation); survey scale reliability scores are listed in parentheses in the diagonal; * $p < .05$, ** $p < .01$, *** $p < .001$.

Examination of Table 12 reveals interesting insights regarding the toll of toxic interactions on truck drivers. Bullying behavior experienced by truck drivers, originating from both insiders and outsiders was strongly linked with all the facets of burnout, and with strong reductions both in intent to remain and in citizenship behavior. Perception of truck driving as a stigmatized career was also linked with lower intent to remain and citizenship behaviors. Stigma was not correlated with burnout, suggesting that stigma directly affects behaviors rather than via stress-pathways. Stigma was also *positively* correlated with job performance; although not a definitive interpretation, this may be a result of their attempting to compensate for a perceived stigma by excelling in their work, re-claiming their identity.[36]

Counter to our expectations, organizational and professional identification were *positively* correlated with many facets of burnout. This suggests that drivers who truly see themselves as such, and who are the most committed to their organization and profession, are experiencing the highest levels of stress. In light of the strong negative correlation between citizenship behavior and burnout, it is possible that high identification workers may even be exhibiting lower levels of citizenship behavior. With citizenship behavior being considered as a facet of overall performance and contributions to their company, these correlations stand in contrast to positive relationships between professional identification and job performance. A series of mediation and interaction analyses was conducted in order to tease out the interrelatedness of stigma, bullying, burnout, and performance variables.

Interestingly, despite the correlation patterns shown in Table 12, total burnout did not mediate the relationships between intent to remain and stigma, insider bullying, or outsider bullying, at a statistically significant level. Nor did total burnout mediate the relationship between the predictors and any other criterion variables. Interactions were tested next; no conditional indirect effects using organizational or professional identification reached statistical significance for either construct.

Total burnout scores mediated the relationship between citizenship behavior and both professional identification (indirect = -0.08, LL95CI = -0.19, UL95CI = -0.01, R^2 = 0.11, $p < .05$) and organizational identification (indirect = -0.09, LL95CI = -0.17, UL95CI = -0.02, R^2 = 0.12, $p < .01$). No mediating effect was found for relationships between job performance and either identification. However, an interaction effect was found. As illustrated in Figure 3, the correlation between organizational identification and burnout was significant for drivers who reported perceiving occupational stigma (slope = .63, $t = 4.20$, $p < .001$). Conditional indirect effect analysis suggested organizational identification decreases citizenship behavior via increased burnout, unless the driver perceives much lower levels of stigma than other workers (see Table 13). Drivers perceiving either average or high levels of stigma had performance loss due to burnout from strong organization identification. A similar analysis failed to be significant for professional identification.

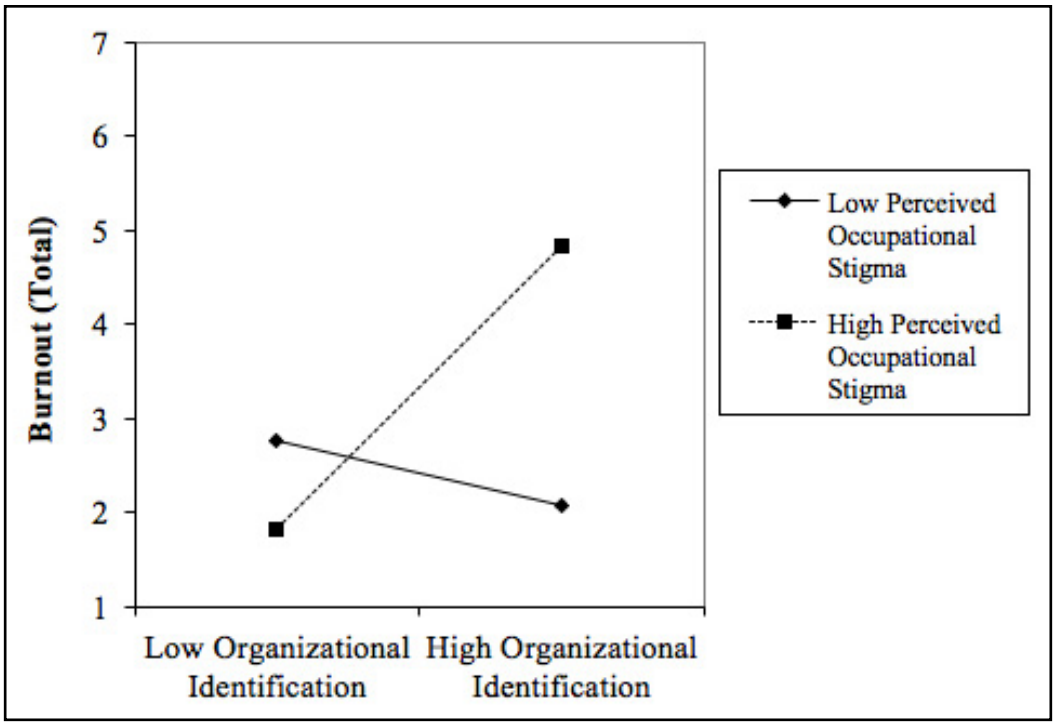

Figure 3. Interaction of Stigma and Bullying (Outsiders)

Note: N = 84.

Table 13. Mediation Analysis of Organizational Identification

	Criterion variables	
	Total Burnout	**Citizenship Behavior**
Predictor variables	β *(SE)*	β *(SE)*
Organizational Identification (O)	.24** (.08)	.13 (.08)
Stigma Towards Profession (S)	.40* (.17)	
O x S	.34** (.12)	
Total Burnout		-.34** (.11)
Model R^2	.24***	.12**

Analysis of the Indirect Effect of National Policy Stress on Citizenship Behavior Via Total Burnout

Level of Supervisor Support (General)	**Indirect Effect**	**Bootstrapped Confidence Intervals (Lower, Upper)**
High (+1 SD)	-.16*	-.27, -.05
Mean	-.08*	-.16, -.01
Low (-1 SD)	-.01	-.09, .11

Note: Sample size = 84; standard errors in parentheses for each coefficient; * $p<0.05$** $p<0.01$*** $p<0.001$.

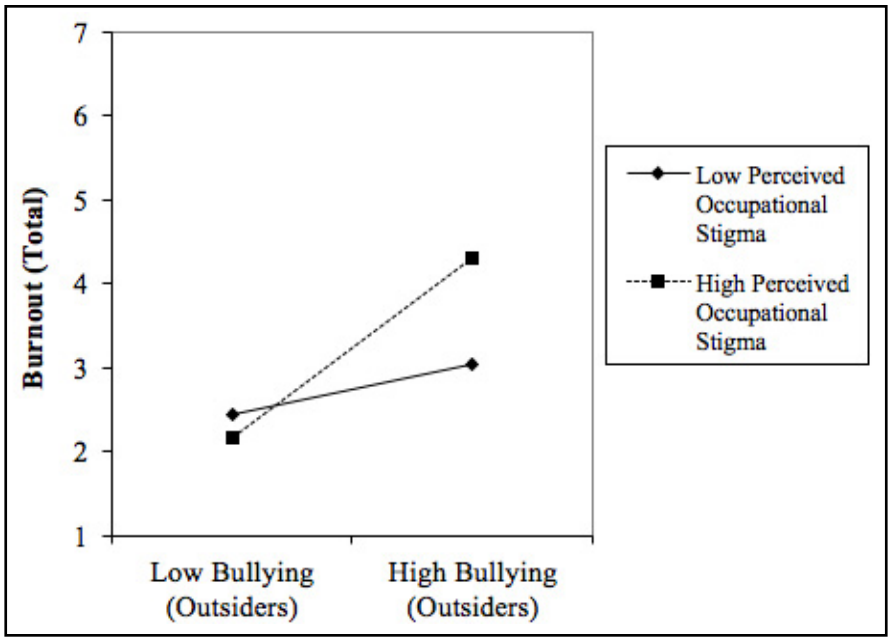

Figure 4. Interaction of Stigma and Bullying (Outsiders)

Note: N = 60.

The interaction of outsider bullying and perceived occupational stigma yielded a very strong interaction effect on total burnout (see Figure 4). Outsider bullying had almost no relationship with total burnout among drivers who did not perceive their occupation as stigmatized. For truck drivers that view their occupation as stigmatized, outsider bullying had a very strong positive effect on total burnout at statistically significant levels (slope = 0.6, t = 6.67, $p < .001$); R^2 was .51 ($p < .001$).

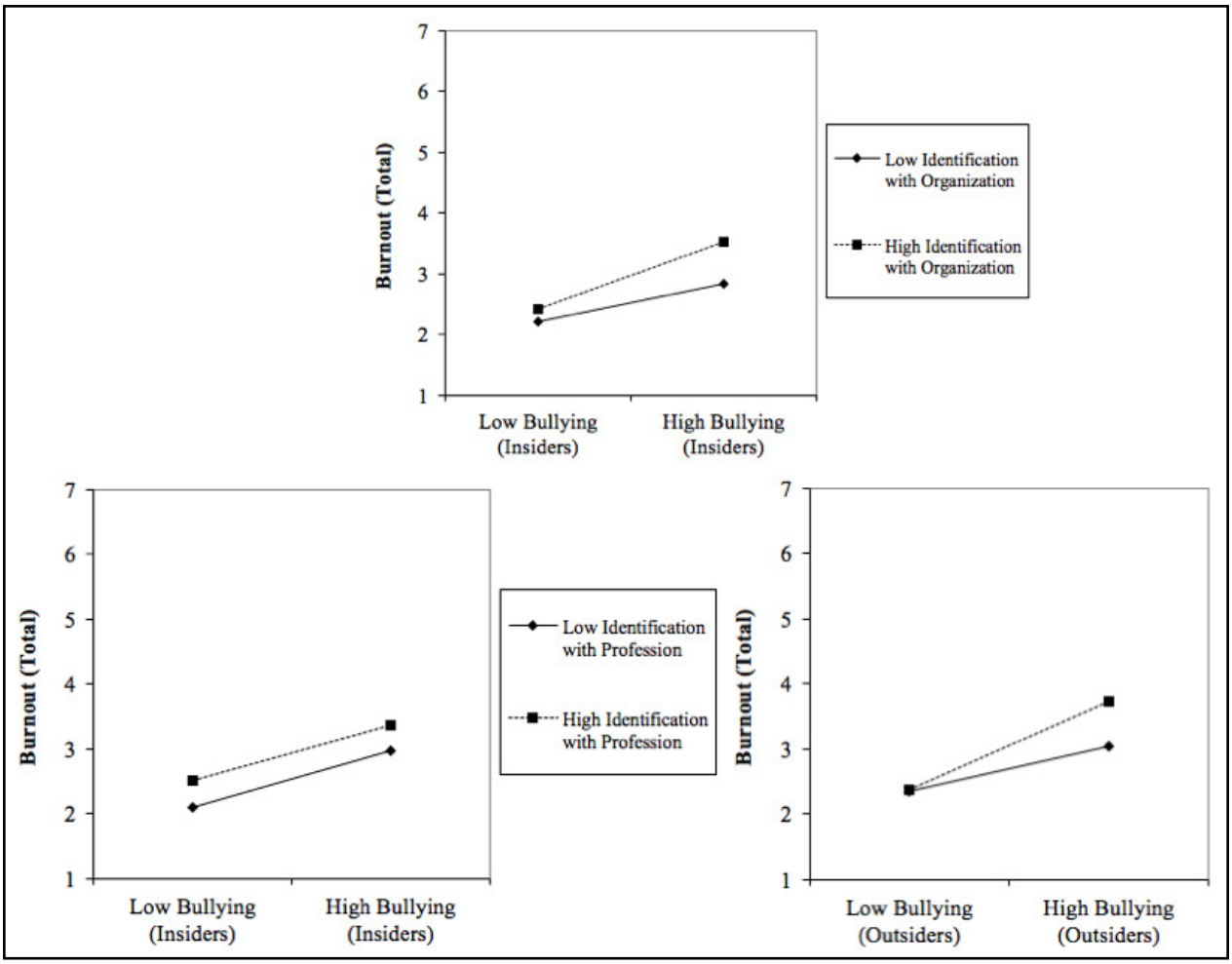

Figure 5. Interaction Between Bullying and Identification

Note: Top interaction N = 88; Bottom left interaction N = 66; Bottom right interaction N = 57.

The relationship between insider bullying and total burnout was only statistically significant among those truck drivers that identified strongly with their organization (slope = 0.32, t = 4.72, $p < .001$); R^2 was 0.33 ($p < .001$). There were no interaction effects between outsider bullying and organizational identification. However, interactions were found between both types of bullying and professional identification. The relationship between insider bullying and total burnout was statistically significant only among truck drivers that identified strongly with their profession (slope = 0.25, t = 3.06, $p < .01$); R^2 was 0.27 ($p < .001$). Likewise, the relationship between outsider bullying and total burnout was statistically significant among the drivers with high profession identification (slope = 0.38, t = 4.02, $p < .001$); R^2 was 0.36 ($p < .001$).

Table 14. Correlation Matrix of Identity Factors (Time 2 Measures)

Factor	1	2	3	4	5	6	7	8	9	10	11	12
1. Stigma Toward Profession	(.34)											
2. Internal Bullying	.20	(.92)										
3. External Bullying	.24	.64***	(.92)									
4. Organizational Identification	-.10	.29**	.16	(.72)								
5. Professional Identification	.10	.38**	.45***	.83***	(.70)							
6. Burnout: Inefficacy	.07	.26*	.26*	.05	-.07	(.63)						
7. Burnout: Exhaustion	.17	.39***	.51***	.35***	.35**	.11	(.87)					
8. Burnout: Cynicism	.11	.40***	.56***	.35***	.40***	.12	.66***	(.67)				
9. Burnout: Total Score	.18	.47***	.58***	.33***	.30*	.52***	.87***	.78***	(.82)			
10. Intent to Remain[a] [Time 2]	-.32*	-.18	-.18	.19	.04	-.05	-.04	-.07	-.07	(.71)		
11. Job Performance[a] [Time 2]	-.19	-.10	-.03	.12	.20	.05	.04	.20	.12	.40**	(.82)	
12. Cooperativeness Effort[a] [Time 2]	-.14	-.18	-.30	.05	-.02	.07	-.06	-.12	-.05	.37**	-.02	(.35)

Note: Samples size varies for each correlation (respondents may have chosen to leave certain question blank), lowest sample size per correlation is 86 and highest is 96, with the exception of outsider bullying (sample size as low as 57 in a correlation) and professional identification (sample size as low as 57 in a correlation); survey scale reliability scores are listed in parentheses in the diagonal; [a] All correlations at Time 2 have sample size of 45 or 46 due to low response rate at Time 2; * $p < .05$, ** $p < .01$, *** $p < .001$.

Finally, although the present study's sample size is relatively small, perceived stigma toward the truck driver profession was significantly, negatively correlated with their intent to remain at the current company at Time 2. No other variables in this study mediated that relationship. Furthermore, standing in contrast to the results found with the Time 1 outcomes, bullying did not significantly predict truck drivers' intent to remain at their current company, nor did it predict any of the job performance variables. These findings suggest that stigma alone may be enough to encourage truck drivers to quit employment at their company. Therefore, while bullying may indeed cause stress for truck drivers, the findings also suggest they may be willing to endure it. Taking into account the collective findings associated with the three interrelated research studies, the following section concludes with discussing the managerial recommendations for California companies.

VI. RECOMMENDATIONS AND SUMMARY

Truck drivers play a critical role in today's complex supply chains. The purpose of this project was to perform three separate but interrelated studies with the unified purpose of adding to the limited body of psychological research about truck drivers. Each study generated new insights that may aid California trucking organizations in their goals of retaining their truck drivers of improving their performance.

The first study explored the impact of policy related stress on the emotional state of job burnout and job-related outcomes. To the best of our knowledge, this is the first attempt at studying different types of policy stress perceived by truck drivers. The initial analysis concluded that California policy changes and the prospect of potential future policy changes do not cause stress in the respondents. Future research could dig deeper into determining the reasons why these two categories of policy change are not perceived as stressful and/or how California drivers are coping with these changes in such a way that negates stress. Considering the fact that the measures for stress relating to these types of policy changes were newly developed, future research could develop survey measures in order to determine if similar results hold with a national respondent base. Also, several drivers mentioned stress related to long wait times and the lack of respect from Port workers; thus, California drivers that deal with Ports might differ in their stress levels from drivers in other states that do not work directly with busy ocean ports.

The findings support the conclusion that stress related to changes in national policy, such as the ELD mandate, are significantly related to total job burnout as well as to cynicism and exhaustion. Further analysis found that feelings of burnout related to stress from national policy changes were moderated by supervisor support, with burnout being significant when general supervisor support was low. In contrast, the relationship between burnout and national policy stress was not moderated by policy supervisor support, which was surprising to us. Future research could explore that result further, but this suggests that when truck drivers do not feel that they have the support of managers in their organization, they are more likely to experience job burnout. Therefore, it is recommended that companies encourage their managers to watch out for feelings of professional inefficacy in their truck drivers, and to respond to them constructively (e.g., via training and support). As those feelings increase, job performance tends to decrease and drivers are more likely to consider leaving their current company.

The results of the second study suggest that both challenge stressors and hindrance stressors affect truck drivers, both of which warrant detailed discussion on the ways in which these results should be addressed by companies and their management.

First, skill discretion, which refers to the degree to which workers have control over tasks and their work experience, was found to be a challenge stressor. Allowing truck drivers to have some influence on operational decisions, responsibilities, and/or independence while at their workplace is likely to be perceived as rewarding. Although we did not explore the direct connection between ELD mandates and perceptions of skill variety on the job, the two may be related. We recommend that transportation organizations adhering to ELD mandates find ways to either preserve drivers' sense of discretion and autonomy,

or compensate for lost discretion through other means. All in all, companies need to recognize that truck drivers would benefit from being viewed and treated similarly, which means empowering them to have a meaningful degree of control over their lives at work, much like managers and other high status employees. Although the path analysis results suggest that skill discretion fails to have a significant effect on burnout or performance, we believe that this is likely due to the small sample size: compared to path analysis, correlation tests have higher power at small sample sizes, and the correlation results suggest that skill discretion does in fact lower burnout, encourage citizenship behavior, and increase the likelihood that the individual will remain at their current company. It is possible that with such high turnover rates inflicting the truck driving profession, a company would gain a competitive advantage by retaining their drivers;[37] therefore, we recommend that companies consider increased skill discretion as one viable approach.

Second, the remaining four job characteristics were all found to be hindrance stressors, and appear to contribute to truck driver burnout. In one case, exposure to hazardous conditions, the burnout resulting from a hindrance stressor was in turn linked with decreased citizenship behavior. Some of these hindrance stressors, such as work/time pressure, even directly affect work outcomes (i.e., intent to remain, citizenship behavior) without necessarily increasing burnout. Given the collective results, we recommend that transportation organizations closely monitor the working conditions of their drivers, and take action to either improve them or offer drivers means of coping with them. The drivers participating in this study also regularly interact with agents at the LB/LA Ports, meaning that our results may be of particular salience to other transportation organizations interfacing with those Ports.

Finally, our explorations into the identities and social experiences of truck drivers yielded interesting findings. Confirming our expectations that were mentioned in the introduction, truck drivers reported identifying more strongly with their profession than with their organization. Neither sense of identification was on average very strong, however, with drivers feeling mostly neutral in their psychological attachment to their organization. Professional identification was associated with higher levels of self-reported job performance in major logistical tasks. Interestingly, drivers who identified more strongly than others with either their organization or their profession, were actually likely to perform *less* citizenship behavior than those with lower levels of identification in either domain. This decrease in citizenship was linked with increased burnout associated with both organizational and professional identification. A further analysis revealed, however, that the effect was neutralized (only with regards to organizational identification) among drivers who perceived low levels of occupational stigma. These results suggest that the drivers who are most strongly identified with their organization and profession, may be at the greatest risk for burnout, and thus reduced helping behavior towards others in the organization (i.e., citizenship behavior). The burden of identification appears to be rooted in stigma, such that drivers who are strongly attached to their organization, experience that stigma more strongly than others. Taken as a whole, it appears that although drivers who emotionally and personally invest themselves in their profession also tend to work more diligently, these same drivers also experience greater stress and reduced pro-social behavior towards others in their organization.

While transportation organizations themselves may not be appealing identity anchors for truck drivers, we recommend that companies respect their truck drivers' attachment to their profession and perhaps offer them ways in which to feel positive about their work. Employers may be able to boost driver performance by encouraging them to feel pride for their profession and to develop their abilities in that domain. Employers would likely benefit from offering personal recognition to drivers who excel at meeting their professional standards as well as from helping all drivers recognize the importance of their work to both the organization and society as a whole. Internal branding activities may help drivers identify more strongly with their profession and perhaps also with their organization. Moreover, we recommend that transportation organizations make use of engagement surveys and/or manager feedback to distinguish individual drivers that identify more strongly with their profession or with their organization. In the process of boosting job performance by strengthening professional identification, organizations may at the same time heighten burnout among drivers. Internal branding efforts that celebrate the truck driving profession, as mentioned above, may reduce these effects by weakening perceived occupational stigmas, and recognizing drivers for their contributions to the organization. Moreover, driver burnout may be more readily managed by cultivating supportive and friendly relationships between truck drivers and their managers/dispatchers, as well as allowing greater flexibility in whichever tasks are identified to be particularly burdensome. Finally, in light of the positive link between organizational identification and burnout as well, we recommend organizations similarly take efforts to positively brand their organization to drivers within the organization and help them manage their stress.

On the subject of bullying, surprising results were found. While the strong positive relationship between bullying and truck driver burnout was anticipated, the relationship was exacerbated for those workers who identified more strongly with their organization or profession. Rather than acting as a buffer, strongly identified workers experienced more stress. Stated differently, those drivers who cared the most about their work, were the one who are the most stressed after experiencing bullying. It is recommended that organizations target their more strongly identifying drivers in particular and attempt to counteract the negative effects of being bullied. Passive practices, such as awarding greater paid time off or offering spot bonuses may be of some use, but issues of identity can also be handled socially. Managers who recognize that their more committed drivers may be experiencing toxic interactions would benefit from building supportive working relationships with those drivers, in order to offset the negative mental effects of being bullied. Drivers who burn out may feel incompetent and unvalued; thus, supportive relationships with managers or supervisors would include a striving to recognize drivers' effort and contributions to the organization. In past research, perception of support from one's organization has been linked to a reduced likelihood of turnover resulting from bullying.[38] Supervisor support that helps drivers to reduce the source of the bullying itself, or to alter their work so as to nullify the bullying, will be more effective than tactics aimed simply at helping drivers feel better about bullying after the fact but not at addressing the problem itself.[35]

Finally, occupational stigma did affect the truck drivers, yet not in the ways that the researchers expected. First, as mentioned above, the perception of working in a stigmatized or "dirty" profession was found to enable a negative relationship between organizational identification and burnout. Second, independently, however, occupational stigma was

directly linked with decreased intention to remain in the current company and decreased citizenship behaviors. This negative relationship between stigma and intention to remain in the current company held both at Time 1 and at Time 2. It appears that truck drivers do not enjoy being associated with such occupational stigma. Also, such perceived stigma may exacerbate the negative effects of bullying. Truck drivers who experienced bullying from outsiders were only likely to feel burnout from it if they also perceived occupational stigma. Much like the truck drivers who strongly identified with their organization or profession, the workers who believe that others see them negatively may also be at greater risk of burnout from bullying. Drawing this consideration together with the abovementioned recommendations, greater supervisor support combined with more recognition of the importance of the driving profession, may be required in order to retain the at-risk truck drivers and boost job performance.

In brief, the three studies conducted in this report offer evidence that transportation-related policies, demanding job characteristics, and hostile occupation stigmas and social interactions are all linked with heightened burnout among truck drivers, as well as organizational outcomes including lower job performance, citizenship behavior, and intent to remain. Burnout experienced from some of these factors (e.g., national policy stress, hazardous exposure, etc.) may also affect work-related outcomes, including intentions to remain in their organization and organizational citizenship behavior. These negative relationships were weakened by certain situational factors, such as the presence of supportive relationships in the case of drivers experience stress from national policies, or reduced perceptions of occupational stigma in the case of drivers who strongly identify with their organization. Although our findings suggest that policies, job characteristics, and identity concerns can impair work-related outcomes among truck drivers, they may also detract from the personal well-being of truck drivers both within and beyond the work environment. Many of the factors were associated with truck driver burnout, which is not only considered an element of well-being itself,[39] but is also strongly and negatively associated with psychological well-being,[40] and linked to increased risk of accidents and injuries.[41] Although we did not directly measure truck driver perceptions of well-being in these studies, and cannot comment on it empirically, truck driver personal well-being for its own sake should be a primary, if not *the* primary, concern of transportation organizations.

APPENDIX

A. Anonymous Participant Record Sheet

ANONYMOUS PARTICIPANT AMAZON GIFT CARD RECORD KEEPING

GIFT CARD ($20 AMAZON)	ID NUMBER
1	003
2	001
3	005
4	007
5	002
6	004
7	006
8	013
9	012
10	011
11	009
12	008
13	019
14	010
15	020
16	014
17	017
18	023 (23)
19	021
20	016
21	018
22	030
23	022
24	028
25	024
26	026
27	027
28	047
29	025
30	015
31	033
32	031
33	034
34	035
35	032
36	039
37	040
38	036
39	042
40	041
41	048
42	049
43	038
44	045
45	037
46	043
47	044
48	046
49	050
50	029

GIFT CARD ($20 AMAZON)	ID NUMBER
51	051
52	055
53	052
54	054
55	059
56	061
57	053
58	060
59	064
60	065
61	070
62	069
63	072
64	066
65	071
66	074
67	073
68	068
69	075
70	078
71	076
72	067
73	077
74	080
75	079
76	083
77	086
78	084
79	087
80	085
81	046
82	093
83	089
84	090
85	0083
86	088
87	094
88	097
89	095
90	096
91	091
92	099
93	100
94	092
95	057
96	036
97	007
98	042
99	006
100	044

1 DATA COLLECTED

A. Anonymous Participant Record Sheet (Continued)

ANONYMOUS PARTICIPANT AMAZON GIFT CARD RECORD KEEPING

GIFT CARD ($20 AMAZON)	ID NUMBER
101	049
102	013
103	F003
104	[redacted] 040
105	005
106	045
107	012
108	027
109	034
110	019
111	030
112	001
113	017
114	009
115	018
116	054
117	074
118	066
119	064
120	096 038
121	096
122	051
123	070
124	058
125	089
126	022
127	077
128	076
129	094
130	086
131	097
132	060
133	099
134	029
135	075
136	095
137	037
138	026
139	008
140	050
141	028
142	047
143	Hemet, CA (online exc.)
144	Los Angeles, CA
145	Long Beach, CA
146	042
147	036 (2nd round)
148	007
149	044
150	006

GIFT CARD ($20 AMAZON)	ID NUMBER
151	
152	
153	
154	
155	
156	
157	
158	
159	
160	
161	
162	
163	
164	
165	
166	
167	
168	
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200	

A. Anonymous Participant Record Sheet: Time 1 and Time 2 Data (Continued)

Date	ID	Q1	Q2	Q3	…	Date	ID	Q1	Q2	Q3	…
6/28/18	001	1	7	4	…	9/12/18	001	3	7	3	…
6/28/18	002	7	7	7	…		002				
6/28/18	003		5 & 6		…	9/12/18	003	2		3	…
6/28/18	004	7	7	7	…		004				
6/28/18	005	7	7	7	…	9/12/18	005	7	7	7	…
6/28/18	006	7	7	7	…	9/12/18	006	7	7	7	…
6/28/18	007	1	7	2	…	9/12/18	007	2	7	2	…
6/28/18	008	7	7	5	…	10/4/18	008	2	7	2	…
6/28/18	009	6	6	7	…	9/12/18	009	6	6	6	…
6/28/18	010	7	7	7	…		010				
6/28/18	011	2	7	5	…		011				
6/28/18	012	4	7	4	…	9/12/18	012	4	7	4	…
6/28/18	013	1	7	3	…	9/12/18	013	6	7		…
6/28/18	014	1	7	6	…		014				
6/28/18	015	7	7	7	…		015				
6/28/18	016	3	7	1	…		016				
6/28/18	017	1	7		…	9/12/18	017	1	7	7	…
6/28/18	018	6	7	4	…	9/12/18	018	7	7	4	…
6/28/18	019	6	7		…	9/12/18	019	7	6	6	…
6/28/18	020	4	6	4	…		020				
6/28/18	021	4	7	4	…		021				
6/28/18	022	7	7	7	…		022				
6/28/18	023	7	7	7	…		023				
6/28/18	024	7	7	7	…		024				
6/28/18	025	6	6	4	…		025				
6/28/18	026	1	7	7	…	10/4/18	026	4	6	2	…
6/28/18	027	4	6 & 7	6	…	9/12/18	027	4	6	5	…
6/28/18	028	7	7	7	…	10/4/18	028	4	7	7	…
6/28/18	030	7	7	7	…	9/12/18	030	6	6	6	…
6/28/18	031	7	7	7	…		031				
6/28/18	032	4	7	6	…		032				
6/28/18	033	7	7	7	…		033				
6/28/18	034	4	7	1	…	9/12/18	034	4	7	1	…
6/28/18	035	5	6	7	…		035				
6/28/18	036	5	7	5	…	9/12/18	036	5	6	4	…
6/28/18	037	5	7	7	…	10/4/18	037	6	7	6	…
6/28/18	038	7	7	6	…	10/4/18	038	7	7	7	…
6/28/18	039				…		039				
6/28/18	040				…	9/12/18	040	5	7	5	…
6/28/18	041	7	7	7	…		041				
6/28/18	042	6	6	7	…	9/12/18	042	6	6	7	…
6/28/18	043	3	7	5 & 7	…		043				
6/28/18	044	7	7	5	…	9/12/18	044	7	5	5	…
6/28/18	045	4 & 7	5	7	…		045				
6/28/18	046	7	7		…		046				
6/28/18	047	4	7	4	…	10/4/18	047	4	7	4	…
6/28/18	048	6	7	7	…	9/12/18	048	4	7	1	…
6/28/18	049	2	7	6	…	9/12/18	049	2	7	3	…
6/28/18	050	4	5	5	…	10/4/18	050	4	6	5	…
7/13/18	051	5	7	5	…	9/20/18	051	5	6	4	…
7/13/18	052	3	7	6	…		052				
7/13/18	054		7	4	…	9/20/18	054	6	6	7	…
7/13/18	055	1	1	7	…		055				
7/13/18	056	1	4	3	…		056				
7/13/18	057	6	7	6	…		057				
7/13/18	058	2	7	3	…	9/20/18	058	3	7	5	…
7/13/18	059	4	7	4	…		059				
7/13/18	060				…		060				
7/13/18	062	7	7	6	…		062				
7/13/18	064	5	7	6	…	9/20/18	064	5	7	6	…
7/13/18	065	5	6	4	…		065				
7/13/18	066	6	7	6	…	9/20/18	066	6	7	6	…
7/13/18	067	3	6	5	…		067				
7/13/18	068	7	7	6	…		068				
7/13/18	069	3	7	4	…	9/20/18	069	7	6	2	…
7/13/18	070	2	7	7	…	9/20/18	070	4	6	5	…
7/13/18	071	4	1	6	…		071				
7/13/18	072	6	6	6	…	9/20/18	072	6	7	6	…
7/13/18	073	7	7	7	…		073				
7/13/18	074	7	7	6	…	9/20/18	074	7	7	7	…
7/13/18	075	7	7	7	…	9/20/18	075	6	7	6	…
7/13/18	076	6	7	3	…	9/20/18	076	4	7	2	…
7/13/18	077	4	7	7	…	9/20/18	077	1	7	1	…
7/13/18	078	1	6		…		078				
7/13/18	079	4	7	4	…		079				
7/13/18	080	4	7	6	…	9/20/18	080	6	7	5	…
7/13/18	082	6	7	6	…		082				
7/13/18	083	6	6	6	…		083				
7/13/18	084		7	7	…		084				
7/13/18	085	4	7	3	…		085				
7/13/18	086	6	6	6	…	9/20/18	086	6	6	6	…
7/13/18	087	6	7	6	…		087				
7/13/18	088	7	7	7	…		088				
7/13/18	089	6	7	6	…	9/20/18	089	4	5	4	…
7/13/18	090	7	6	7	…		090				
7/13/18	092	7	7		…		092				
7/13/18	093	4	1	4	…		093				
7/13/18	094	7	7	6	…	9/20/18	094	6	7	6	…
7/13/18	095	7	7	6	…	9/20/18	095	6	7	6	…
7/13/18	096	4 & 7	7	5	…	9/20/18	096	5	6	3	…
7/13/18	097	6	7	5	…	9/20/18	097	3	5	7	…
7/13/18	098	6	5	6	…		098				
7/13/18	099	6	7	6	…	9/20/18	099	6	7	7	…
7/13/18	100	7	7	4	…		100				

B. Survey Measurement Items

Stressors: Policy Changes and Future Technology. In the past year, how often have you thought or experienced feelings concerning the following statements? (1=Never; 2=A few times a year; 3=About once a month; 4=A few times a month; 5=Once a week; 6=A few times a week; 7=Everyday)
I feel stressed because of national policy changes like the Electronic Logging Device (ELD) mandate.
I become upset because of national policies like Hours of Service (HOS) regulations.
I feel like I am not in control of my job when I deal with changes like ramp metering in California.
I feel confident about adopting new technologies like electric or autonomous (self-driving) trucks.
I feel anxious when I hear others talking about new technologies that might impact my job.
Within Organization Social Support. Please indicate the degree to which you agree or disagree with the following statements. (1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly agree)
I receive help and support from my supervisor.
I receive help and support from my dispatcher.
I participate in meetings with other drivers.
I receive adequate training to perform my job responsibilities.
My company offers help and wellness programs.
I receive emotional support from my boss.
I receive adequate training to ensure I understand regulation changes.
I receive help and support regarding changes in policies and regulations.
My company offers programs to make sure I understand changes in job responsibilities related to policy changes.
Skill Discretion. Please indicate the degree to which you agree or disagree with the following statements. (1=Strongly disagree; 2=Disagree; 3=Slightly disagree; 4=Neutral; 5=Slightly agree; 6=Agree; 7=Strongly agree)
My job requires me to be creative.
I have a lot of responsibility in my job.
I have opportunities to develop special abilities.
My work is boring and monotonous.
I do a variety of different things on my job.
My job requires a high level of skill.
My job requires that I learn new things.
My job involves a lot of repetitive work.
Physical Exertion and Workload. Please indicate the degree to which you agree or disagree with the following statements. (1=Strongly disagree; 2=Disagree; 3=Slightly disagree; 4=Neutral; 5=Slightly agree; 6=Agree; 7=Strongly agree)
My job requires a lot of physical effort.
I am often required to work for long periods with my body in physically uncomfortable positions.
My work does not tax me too much physically.

B. Survey Measurement Items (Continued)

Work & Time Pressure. Please indicate the degree to which you agree or disagree with the following statements. (1=Strongly disagree; 2=Disagree; 3=Slightly disagree; 4=Neutral; 5=Slightly agree; 6=Agree; 7=Strongly agree)
I am asked to do an excessive amount of work.
I always have enough time to complete my work.
My job requires working very hard to get done.
Hazardous Exposure. Please indicate the degree to which you agree or disagree with the following statements. (1=Strongly disagree; 2=Disagree; 3=Slightly disagree; 4=Neutral; 5=Slightly agree; 6=Agree; 7=Strongly agree)
On my job, I am exposed to dangerous tools, machinery, or equipment.
On my job, I am exposed to things placed or stored dangerously.
On my job, I am using dangerous work methods.
On my job, I am exposed to air pollution.
On my job, I am exposed to dirty or badly maintained areas.
On my job, I am exposed to dangerous conditions or situations.
Emotional Demands. Please indicate the degree to which you agree or disagree with the following statements. (1=Strongly disagree; 2=Disagree; 3=Slightly disagree; 4=Neutral; 5=Slightly agree; 6=Agree; 7=Strongly agree)
My work is emotionally demanding.
In my work, I am confronted with things that touch me on a personal level.
In my work, I face emotionally charged situations.
In my work, I have to deal with people who incessantly complain.
In my work, I have to deal with people who are demanding.
In my work I have to deal with people who do not treat me with appropriate amount of respect and politeness.
Professional Stigma. Please indicate the degree to which you agree or disagree with the following statements. How most people view your profession? (1=Strongly disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly agree)
They believe that a person who works as a Truck Driver is just as intelligent as the average person.
They believe that a person in my profession is just as trustworthy as the average citizen.
They feel that working in my profession is a sign of personal failure.
They think less of a person who works as a truck driver.
They would treat a person in my profession just as they would treat anyone.
Bullying (Internal = Coworkers/Supervisors; External = Clients/Outsiders). How often do people engage in the behaviors? (1=Never; 2=Once a year; 3=Twice a year; 4=Several times a year; 5=Monthly; 6=Weekly; 7=Daily)
Make fun of you.
Say or do something hurtful to you.
Make an ethnic, religious, or racial remark about you.
Curse at you (verbal or non-verbal).
Act rudely toward you.
Publicly embarrass you.

B. Survey Measurement Items (Continued)

Organization Identification. Please indicate the degree to which you agree or disagree with these statements. (1=Strongly disagree; 2=Disagree; 3=Slightly disagree; 4=Neutral; 5=Slightly agree; 6=Agree; 7=Strongly agree)
It feels like a personal insult when someone criticizes my organization.
I am very interested in what others think about my organization.
I usually say “we” rather than “they” when I talk about my organization.
I would feel embarrassed if a story in the media criticized my organization.
It feels like a personal compliment when someone praises my organization.
I feel successful when I hear about the successes of my organization.
Professional Identification. Please indicate the degree to which you agree or disagree with these statements. (1=Strongly disagree; 2=Disagree; 3=Slightly disagree; 4=Neutral; 5=Slightly agree; 6=Agree; 7=Strongly agree)
It feels like a personal insult when someone criticizes my profession.
I am very interested in what others think about my profession.
I usually say “we” rather than “they” when I talk about my profession.
I would feel embarrassed if a story in the media criticized my profession.
It feels like a personal compliment when someone praises my profession.
I feel successful when I hear about the successes of my profession.
Identity Connectedness. Please indicate the degree to which you agree or disagree with these statements. (1=Strongly disagree; 2=Disagree; 3=Slightly disagree; 4=Neutral; 5=Slightly agree; 6=Agree; 7=Strongly agree)
I feel like a “company-driver” (i.e., hyphenated, a mixture of the two).
I keep my identity as a member of my organization and my identity as a truck driver separate.
I can express my professional identity as a driver through my organization.
I am simply a truck driver who happens to work at this company.
I am conflicted between the way of doing things in my organization and the way a truck driver in my profession should do things.
I feel like someone moving between two identities (professional driver, organization member).
I feel caught between my identity as a professional driver and as a member of my organization.
I don’t feel trapped between being a professional driver and being a member of this organization.
Burnout: Inefficacy. How often do you feel each of the following at work? (1=Never; 2=A few times a year; 3=About once a month; 4=A few times a month; 5=Once a week; 6=A few times a week; 7=Everyday)
I can effectively solve the problems that arise in my work.
I feel I am making a big contribution to what my organization does.
In my opinion, I am good at my job.
I feel exhilarated when I accomplish something at work.
I have accomplished many worthwhile things on this job.
At my work, I feel confident that I am effective at getting things done.

B. Survey Measurement Items (Continued)

Burnout: Exhaustion. How often do you feel each of the following at work? (1=Never; 2=A few times a year; 3=About once a month; 4=A few times a month; 5=Once a week; 6=A few times a week; 7=Everyday)
I feel emotionally drained from my work.
I feel used up at the end of the workday.
I feel tired when I get up in the morning and have to face another day on the job.
Working all day is really a straining on me.
I feel burned out from my work.
Burnout: Cynicism. How often do you feel each of the following at work? (1=Never; 2=A few times a year; 3=About once a month; 4=A few times a month; 5=Once a week; 6=A few times a week; 7=Everyday)
I have become less interested in my work since I started this job.
I just want to do my job and not be bothered.
I have become more cynical about whether my work contributes anything.
I doubt the significance of my work.
Intent to Remain. Please indicate the degree to which you agree or disagree with these statements. (1=Strongly disagree; 2=Disagree; 3=Slightly disagree; 4=Neutral; 5=Slightly agree; 6=Agree; 7=Strongly agree)
I have found a home at this company.
I see myself being at this company for a long time.
My family is proud that I work for this company.
I do not plan to be here much longer.
Job Performance. Compared to other drivers in your company, how would you rate yourself on: (1=Much worse; 4=Equal to others; 7=Much better)
On-time deliveries.
Ease of locating pickup and delivery sites.
Driver productivity.
Driver performance.
Organization Citizenship Behavior. Compared to other drivers in your company, how would you rate yourself on: (1=Much worse; 4=Equal to others; 7=Much better)
Attendance at work.
Giving advance notice when unable to come to work.
Taking undeserved breaks.
Complaining about insignificant things at work.
Adhering to informal rules devised to maintain order.
Cooperativeness & Extra Effort. Compared to other drivers in your company, how would you rate yourself on: (1=Much worse; 4=Equal to others; 7=Much better)
Avoiding additional training to improve performance.
Avoiding extra duties and responsibilities at work.
Working beyond what is required.
Cooperating with others on projects.
Volunteering for overtime work when needed.

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