# LOHP | LABOR OCCUPATIONAL HEALTH PROGRAM UNIVERSITY OF CALIFORNIA, BERKELEY

# **Excessive Workload in the Janitorial Industry** – An Emerging Health and Safety Concern –

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### **Executive Summary**

Janitors carry out physically demanding work in high-paced environments each day, and these demands have only increased with industry pressures and competitive bidding that result in cheaper cleaning contracts and reduced staff. In California, the union that represents janitors, SEIU-USWW, has raised concerns about the increased workload and resulting injuries their members have experienced since the mid-2000s. In their experience, production rates based on square footage for cleaning have nearly doubled. The union notes that in 2015, it was common for a single janitor to clean as much as 50,000 to 60,000 square feet a night. Excessive workload is a work organization hazard that can result in sprains and other injuries, especially in an industry that involves high musculoskeletal loads as in the janitorial industry. Excessive workload is also a key contributor to job stress.

This report summarizes findings from six focus groups conducted with 59 janitors in the summer of 2016. Five groups were conducted with union janitors in Los Angeles, Orange, Sacramento, San Diego and San Jose, and one was conducted with non-union janitors in Los Angeles. The **primary objectives** of this study were to better understand: a) the impact of increased workload on the physical and mental health of janitors;

- b) janitors' concerns with respect to workload and their health and safety at work;
- c) janitors' experiences with changes in workload in recent years; and
- d) the extent and types of changes janitors have experienced.

Focus group participants were predominantly women and represented an array of ages. Almost all reported their job title was janitor, and a large majority (88%) worked a night shift. One of the criteria used in recruitment was years on the job, in order to compare the changes in workload over time. Janitors had many years of experience working in the industry; 50% had worked as janitors for over 15 years and 28% had worked as janitors for 10 to 14 years. Most of the janitors clean office buildings. Those in the San Jose group also clean large tech companies, while those in the non-union group also clean movie theaters and malls.

### **Key Findings:**

- From the outset, janitors raised explicit workload and workload increases over time as key concerns tied to worker health and safety. In response to a request to estimate to what degree their workload had changed since they began working as janitors, over a third of participants said their workload had increased by 1.5, 28% estimated it had doubled, and 21% stated it had more than doubled.
- Janitors described changes in the areas and spaces they have to clean as one of the main contributors to their increased workload, particularly the impact of changes in density or space design. Though workers are now cleaning more floors overall, these floors have doubled in occupancy as more cubicles and workspaces are fit within floors. For janitors, this represents much more cleaning on each floor.
- There is also reduction in staffing, with **fewer workers cleaning these larger, more densely** occupied spaces. There is a trend to consolidate or eliminate positions, and **hire more part-time** staff for shorter shifts, which results in greater staff turnover as the new workers cannot keep up

in that short time. Janitors are **assigned additional cleaning tasks** to complete in the same amount of time, in part due to staff reductions.

- Scheduling decisions do not include a variety of tasks that take up janitors' time, such as refilling carts or moving from floor to floor, and returning to the office to punch in and out for breaks and lunch. For non-union janitors, time spent driving between buildings is unpaid. In addition, the new "3-2 schedule" in which workers distribute tasks over different days often contributes to increased workload as tasks become more difficult when not completed daily.
- New equipment and supplies, or equipment that is either faulty or in poor condition, also adds to workload. Janitors described, for example, that the new green cleaning solutions do not work efficiently and take much more time and physical effort.
- Concerns about employer treatment shaped employer-worker interactions and workload
  pressures. An overarching sentiment across focus groups was that workers feel the unrealistic
  workload represents a lack of respect and being taken advantage of by employers. Stressful
  supervisor and worker relationships manifested in multiple ways and exacerbated the pressure
  workers feel about workload. These included supervisors' close monitoring of worker
  performance, not approving request for leave, adding extra work to others to cover for an absent
  worker, and retaliating against workers by giving them more difficult tasks or extra work.
- Workers in the **non-union group reported similar patterns** as contributors to their workload and concerns about employer treatment. Some differences included that this group worked longer days, transportation between job sites was not factored into their workday, and they described instances of not being paid for work completed, as well as having less recourse to address problems.
- Janitors perceived that their **demanding workload impacted their health** in various ways, including:
  - **Bodily injury and broken bones** from slips and falls and hitting objects while rushing to complete their work
  - Ergonomic injuries risk factors such as repetitive work, use of vacuums, lifting heavy items, and using force with the green cleaning supplies are exacerbated because of demands to work at a fast-space, possibly forgoing rest periods.
  - Stress and mental health, including anxiety, frustration and fear. This job stress was described as linked to the high-stress work environment, stressful relationship with supervisors, and the constant adjustments they need to make each day or week to their work plan to meet expectations. The stress and irritability carries over into their family lives, parenting and relationships with their partners.
- Janitors provided recommendations to address workload and reduce their risks for injury and illness, including:
  - Involving workers in decisions that affect their health and recognizing the importance of worker voice and experience
  - Engaging the variety of stakeholders including contractors, unions, supervisors, building owners, tenants, and property managers

- Providing improved training for supervisors and clarifying the employer-worker systems of communication for problem-solving
- Defining realistic workload expectations and tasks and providing written job descriptions
- Developing policies to protect against excessive workload.

#### **Conclusion:**

In this study, janitors, most with over 10 years in the industry, reported increased workload over time, with over half describing that their workload had doubled. This excess workload manifests in myriad ways, including how work is scheduled, the increase in number and complexity of tasks, the unrealistic quantity of tasks for the hours worked, and the number of hours distributed across fewer workers. Workers described how a high workload environment stems from, and can reinforce, tense employer-worker and inter-worker dynamics, and how the increased workload impacts physical health resulting in physical injury as well as work-related stress. The latter affects worker mental health and extends to relationships with children and partners. There is an immediate need to proactively address excess workload to prevent and intervene on janitors' physical and mental health workload injuries. The impacts of workload and the stress associated with the social environment at work sites may have a cumulative effect on health over time.

Based on the findings we provide the following recommendations for further study and as potential future directions to address workload challenges in the janitorial sector:

- 1. Investigate ergonomic injuries and risk factors in light of increased workload and equipment changes. Document the extent of injuries associated with workload and assess the impact of risk factors including repetitive work and new equipment such as the backpack vacuum in the context of the increased workload. Also, evaluate whether workers are seeing their own physicians or reporting ergonomic injuries as workers' compensation claims.
- Explore to what extent workers are provided with accommodations and light duty work. Assess
  worker compensation compliance and ability to implement restricted work requests following
  injury.
- 3. Create systems to calculate realistic workload based on nature of tasks and number of workers. Consider a time study to evaluate the length of time realistically associated with different tasks, to address the limitations of calculating time based on square footage. A time study should assess factors such as compliance with break and lunch hours, time to get to and from work sites, and time to punch in and out.
- 4. Assess whether the green cleaning supplies in use are the best available for janitorial sector and institute practices that enable contractors and building owners to meet environmental goals while also ensuring realistic expectations for workload. Green cleaning supplies hold promise for worker and tenant health as well as the environment. However, green cleaning supplies, energy conservation efforts, and other "green tasks" such as recycling need to be accounted for in workload time calculations.

5. Conduct further investigation into reports of wage and hour violations, particularly in the nonunion sector and identify ways to influence workload demands in the non-union sector. Nonunion janitors face the added challenge of not having an organizational entity that can act on their behalf. There is a need to identify mechanisms for intervention to provide "checks and balances" on the contractors' workload demands in the non-union sector and a path for negotiating realistic workloads.

It is clear that solutions should involve multi-level interventions that engage the broad range of stakeholders in their design and implementation. Workers across focus groups expressed pride in their work and communicated a hope that by sharing their work experiences they might join in industry efforts to mitigate work-related risk and create healthy, productive work environments.

# I. Background

Excessive workload is a work organization hazard that can result in sprains and other injuries and is a key contributor to job-stress, particularly in a physically demanding occupation such as janitorial work. A 2013 study in Washington assessed workload and work intensity among union and non-union janitors and found trends to suggest that workload contributed to increased rates of injury, illness, and stress (Seixas et al. 2013). Chronic work-related stress, particularly in work settings with effort-reward imbalances, safety concerns and low job control, coupled with other life stresses, such as discrimination and immigration status, can have long-term effects on health and result in chronic disease (Mauss et al. 2105).

In California there are over 220,000 janitors employed in the cleaning industry, 38% of whom are employed by contractors (Hinkley et al. 2016). Most of these low-wage workers are Latino and immigrant workers who primarily clean the state's largest private multi and single-tenant commercial real estate properties, with duties including regular dusting, vacuuming, and detail services. About 24% of janitors who work in the private sector are SEIU-USWW union members (Hinkley et al. 2016). The union has raised concerns about the increased workload their members have experienced since the mid-2000s and the resulting injuries. In their experience, production rates based on square footage for cleaning have nearly doubled. The union notes that in 2015, it was common for a single janitor to clean as much as 50,000 to 60,000 square feet a night. In some cases, workers are cleaning up to 70,000 square feet by themselves.

This study sought to examine janitors' perspectives on their workload and its impact on their health. The **primary objectives** were to better understand:

- a) the impact of increased workload on the physical and mental health of janitors;
- b) janitors' concerns with respect to workload and their health and safety at work;
- c) janitors' experiences with changes in workload in recent years; and
- d) the extent and types of changes janitors have experienced.

### **II. Methods**

#### **Study Design and Recruitment**

Five focus groups were conducted with SEIU-USWW members in different areas in California: Sacramento, San Jose, Los Angeles, Orange, and San Diego. A sixth focus group was conducted with non-union janitors in Los Angeles. All groups were facilitated in Spanish by bilingual facilitators from the Labor Occupational Health Program. SEIU-USWW conducted outreach to recruit participants to the union focus groups, and Maintenance Corporation Trust Fund recruited workers to the non-union group. Each focus group averaged 9-10 workers (see **Table 1**), and all participants provided informed consent to participate and received a gift card. The UC Berkeley Committee for the Protection of Human Subjects approved the study protocol.

#### Focus Group Guide and Analysis

Facilitators followed a focus group guide that included open ended questions and prompts to address the following topics: workers' concerns about health and safety; their perception of their workload and in what ways it had changed over time; the ways they had adapted or changed how they do their work to manage workload; workload impact on their health and safety at work, as well as on family

and community life; and their suggestions or recommendations for changes to improve conditions affecting workload. As part of the focus groups, facilitators used an associative imagery activity to gain insight into janitors' emotions, memories, and thoughts about their work and workload. This is a qualitative method that involves using carefully selected images that serve as triggers to discuss abstract and difficult concepts.

The focus groups were audio-recorded and then professionally transcribed in Spanish. Bilingual researchers reviewed the transcripts for completeness and in conjunction with facilitator notes taken during the focus groups. Two bilingual researchers then developed a coding system to assess major themes and patterns in two steps: first, codes were created drawing from the focus group topics, and second, additional codes or themes were added as they emerged from the transcripts. This process resulted in 64 codes. Researchers coded transcripts and made comparisons for a subset of the transcripts to assess coding consistency. All transcripts were coded in Spanish using an online analytic tool, Dedoose. There were a total of 733 coded excerpts. For each code, researchers identified reoccurring themes and sub-themes and then grouped related topics. The excerpts from groups selected for this report are representative of trends or common themes across groups. Some differences by group were assessed, particularly between the non-union and union groups. In some instances an excerpt from a single participant that reflects a unique experience was included if it offered a more nuanced understanding of an overarching theme. Selected excerpts were translated into English for this report.

Location	Number of participants	Number of women	Number of men
Los Angeles, Union	10	6	4
Los Angeles, Non-union	9	7	2
Orange	12	11	1
Sacramento	11	11	0
San Diego	9	9	0
San Jose	8	6	2
TOTAL	59	50	9

### Table 1: Focus Group Participants by Location

As indicated in **Table 2**, focus group participants were predominantly women and represented an array of ages. Almost all reported their job title was janitor, and a large majority (88%) worked a night shift. One of the criteria used in recruitment was years on the job, in order to compare workload changes over time. Janitors had many years of experience working in the industry; 50% had worked as janitors for over 15 years and 28% had worked as janitors for 10 to 14 years. Most participants had worked with their current employer for over five years. All of the workers were employed by contractors.

Characteristic	Number	Percentage	
	N = 59	of TOTAL	
Gender			
Male	9	16%	
Female	50	84%	
Age			
21 -30	4	7%	
31-40	13	22%	
41 -50	18	31%	
51 - 60	16	28%	
more than 60	6	10%	
No answer	1	2%	
Years working as janitor			
<1	1	2%	
1-5	2	3%	
6 - 9	9	16%	
10 - 14	16	28%	
> 15	29	50%	
No answer	1	2%	
Job title			
Day porter	0	0%	
Janitor	56	95%	
Waxer	1	2%	
Other	2	3%	
Shift			
Day	6	10%	
Night	51	88%	
No answer	1	2%	
Years with current employer			
<1	3	5%	
1 - 5	15	26%	
6 - 9	12	21%	
10 - 14	12	21%	
> 15	13	22%	
No answer	3	5%	

 Table 2: Characteristics of Focus Group Participants

# III. Findings

I think a concern is the excess of work. That you go around racing to do the work because we have a set time, and we need to run and run and run, and sometimes, because of this, accidents happen. I think that is a huge concern that we all have as janitors. – Orange

### A. Health and Safety Concerns

When initially asked to think of health and safety concerns or types of conditions that can harm or affect their health, janitors raised a variety of issues. These included:

- **Ergonomic Hazards** (repetitive work, work pace, equipment such as the backpack vacuums, awkward postures and resultant tendon, muscular and back injuries)
- Workload (pressured pace, having to rush, unrealistic scope of work)
- Safety Hazards (slippery floors, faulty equipment, glass and cut hazards)
- **Stress Hazards** (stress/anxiety, increased workload, employer treatment, lack of sleep and night shifts, irregular meal schedule)
- **Chemical Hazards** (liquid cleaners, including green products, used for cleaning bathrooms, floors, etc. that cause allergic reactions, irritation and respiratory effects)
- Lack of emergency plans (e.g., building exit plans)
- Lack of protective gear (e.g., gloves or masks).

Appendix A provides some selected quotes to illustrate the above hazards in workers' own voices.

From the outset, all but one group explicitly raised workload and workload increases over time as key concerns tied to worker health and safety. While this may have been due in part to the fact that focus group participants were aware that they were coming to the focus group to discuss workload, it was clearly of concern.

### **B.** Changes in Workload over Time

They see a janitor as a machine. They don't see us as people, as human beings. They see a machine in us and say, "it's 20 floors, so that is 5 floors each." – Los Angeles

When I began working as a janitor in a building with five floors, there were 4 of us ... now supposedly there are four of us still, but in a building with 12 floors. The difference is that now we [each person] are getting four floors to clean. – Orange

As nearly 80% of focus group participants had worked in the industry for over 10 years and half had worked as janitors for over 15 years, workers could draw on this experience to provide a perspective on workload changes over time. Most of the janitors clean office buildings. Those in the San Jose group also clean large tech companies, while those in the non-union group also clean movie theaters and malls.

Workers were asked on a brief survey to estimate to what degree their workload had changed since they began working as janitors. As shown in **Figure 1**, while 12% stated their workload had either stayed the same or was less, over a third of participants said their workload had increased by 1.5, 28% estimated it had doubled and one in five stated it had more than doubled.

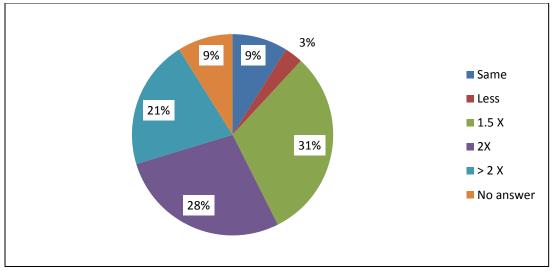


Figure 1: Worker Perception of Workload Change

Janitors described the areas and spaces they clean as one main contributor to their increased workload, particularly the impact of changes in density or space design. In addition, reductions in staffing and changes in equipment and work duties further increase workload demands. Workload increases are associated with the interplay between these factors:

- Space and Area Cleaned (square footage, density and remodeling)
- Staffing (fewer workers, part-time and temporary hires)
- o Tasks and Duties (types of tasks, additional time for tasks, punching in and out)
- o Equipment and Supplies (green cleaning)
- o Scheduling

### Space and Area Cleaned

#### **Square Footage**

All groups reported an increase in the number of floors or overall square footage they clean (see **Table 3**). The pattern across all groups is that workers are cleaning more floors overall, though the floor size will vary in square footage by building and by worker:

"The number of floors has increased... they want more for the same amount of time. Now this year they have given us excess of work for the same amount of time and they want the same level of cleaning." (San Diego)

Region	Floors cleaned before per worker, "when they started"	Floors cleaned now, per worker
Los Angeles	2 floors	3.75 floors
Los Angeles – non-union	3 movie theaters	7 – 14 theaters
Orange	1.25 floors	4 floors
Sacramento	2 floors	7 or 8 floors
San Diego	2 floors	3.5 floors
San Jose	1 floor	4 floors

#### Table 3: Examples of changes in work area over time

The non-union janitor participants worked in different settings, not just office buildings but also sites such as movie theaters. They described a similar increase in the area they are required to clean. One worker described how when she started 23 years ago she would clean three movie theaters, now she and her coworkers are assigned 7, 10, up to 14 theaters to clean. Similarly, a worker who cleans bathrooms in movie theaters says she used to clean four bathrooms and now cleans 12. The corresponding increase in pay they have received is not equivalent to the increased work. For example, one worker said they used to earn \$800 bimonthly for cleaning four theaters, and now they earn \$1,000 for cleaning 14.

#### Density

In addition, one of the greatest factors increasing their workload is that the layout of the floors is no longer the same – in fact, there are now more workspaces per floor because of companies renting out fewer floors or remodeling trends with more cubicles or the "open space" plan. For example, in one case a company used to occupy five floors, but then downsized and only rented two. A worker described, "They took all those people and crammed them into a floor. Now there are 100 people in two floors, whereas before they were spread out in five floors." (Los Angeles) In another building, a worker described how there used to be 200 people on a floor with their desks and two chairs each, and now there are 340 people on the same floor. Yet another described it in terms of the trash bins they need to clean – "there were 150 and now there are 280." (Orange) Workers also described how in the new "open space" format, companies can fit more people in each space. One janitor in San Jose looked at a map of a new remodel and noted that there were to be 450 desks on the floor. These types of examples were repeated in each focus group.

As a result of these changes, janitors have more cleaning to do in each floor. There are more desks to dust, more areas to vacuum, and more trash bins to empty and replace with a clean bag. They also described how crammed the layout is and how difficult it is for them to maneuver around the desks to clean. "The vacuum cleaner barely fits in there to vacuum. One doesn't fit even sideways – and if

you are a little more full-bodied, well even worse...just the vacuum." (Orange) Workers also described having to rush and race around to be able to clean their assigned areas. Management does not recognize the impact of these layout changes and so janitors are not given more time to clean a floor. "They are remodeling all the floors and putting in twice as many people in cubicles... And they say, 'it's the same, the building hasn't grown.'" (Orange)

#### **Remodeling changes**

Other remodeling changes that affect workload include: copy rooms replaced with more cubicles; changing building materials (for example, substituting carpet with hard wood floors, the latter taking longer to clean); and the addition of new types of rooms, such as break rooms. The San Jose group described how a company had added break rooms for the children to play while clients did business at the company. "Those create more work because you have to check that the coffee pots that are programmed don't leak water...because they take care of them...they take care of their clients more than us. And if you're in there and you get hit by a ball, well it doesn't matter." (San Jose) Similarly, workers from San Jose shared how tech companies create structures that affect the physical space, type of tasks, and scheduling. One worker described, for example, how cafeteria space expanded as more free food options were offered to tech employees at Google, then Apple, and now at Facebook in Silicon Valley. The amount of physical space not only has grown, but as one worker said in response to this growth, "food [and cleaning cafeterias] is heavy work."

As a result, janitors talked about how the way work is assigned does not reflect the reality of their tasks. The time calculations on cleaning do not factor in tenant density or the impact of remodeling and other factors that affect workload.

# Staffing

#### **Fewer workers**

Workers in every focus group talked about how the reduction of workers over time has resulted in an increased workload. In all groups, janitors described significant staff decreases. In several groups, participants discussed a decrease in staff by nearly half. In small workplaces, this could mean losing one of two or two of four workers. The following examples represent common staffing changes mentioned across focus groups:

- teams of about 12 workers dropped to seven or eight (Several sites)
- crews of 20 workers dropped to about 14 (Several sites)
- a crew of 220 workers lost 40 janitors (San Jose)
- a company that had 55 workers dwindled to 18 (Orange).

Reductions in staff create more work for smaller crews. Some groups described ways in which employers may request "favors" to complete tasks previously distributed among a larger number of janitors:

"Where I am now, there have been reductions in staff as well. And you hear, 'Can you do me a favor, just this one thing, yes?' Then, we go back to the same thing. For one favor or another, they are loading [the work] on us." (Orange)

Contractors have also eliminated positions that used to exist, such as those who were "utility" and helped re-stock carts and supplies, or those who specifically cleaned bathrooms. With these positions

eliminated, their tasks are integrated into the janitors' scope of work. In general, as the number of workers has decreased, those who remain are also assigned more floors.

#### Part-time and temporary hires

Another hiring practice related to staffing changes involves hiring part-time and temporary workers, and, specifically, the four-hour shift. Janitors described that there is a trend towards hiring workers for four hours in order to avoid paying benefits. One worker said:

"The new employees now, the ones who are starting, they give them four hours to start...they are almost half now [of the staff]. And they start and then don't last long. They don't last long because they get so much work and you can't do it in four hours." (San Diego)

According to the janitors, hiring workers for shorter shifts is resulting in staff turnover. Many fourhour shift employees receive multiple warnings or are fired for not completing their tasks, even though their workload is not much different from workers with eight-hour shifts.

### > Tasks and Duties

As a result of the changes in staffing and in the areas cleaned, janitors reported being assigned *additional* work tasks to complete in the same amount of time, even though these tasks were the purview of other types of workers or of more workers in the past.

#### **Types of cleaning tasks**

Janitors working for different companies and work settings remarked on how the types of cleaning activities have increased since they started working in the industry. As one janitor from Orange shared:

"...when I started in '90, we really didn't do more than dust the floors and the kitchens...From 2005 up to the present, we do two floors, but on those two floors, we are talking about vacuuming, the garbage, mopping, dusting, everything."

Workers in the Los Angeles non-union group also provided examples of the increase in tasks, including how "detailed" cleaning leads to more work:

"So, you start working-- at one time they assign you eight hours and we -- in this case, there was a floor and half, it was just the basic [tasks]: take out trash, remove footprints, clean kitchens, wash coffeemakers, clean bathrooms...But not now, now they ask for details...when I started I was one of the people who learned how to do details: remove rust from faucets, remove stains from mugs, and when they saw you do this, they started to add more work and more work and more work."

In addition, general janitorial staff has to take on tasks, such as specialty cleaning that used to be assigned to utility or other workers.

"...now they are asking for things...before there were utilities, the utilities have disappeared and all that work that the utilities did, we do...details, like take stains off the walls, clean the elevators, clean the window panes. Now you have to do that work. So, that is an increase in work that we have today." (Los Angeles)

#### Additional Tasks, Same Amount of Time

Workers across groups talked about how new cleaning tasks are assigned without allocating additional time to complete assignments adding to the overall workload. While employers previously would offer weekend hours to complete detailed cleaning tasks, now the expectation is that this additional and "specialty" work be completed during the standard work week:

"In my case, I think we are worse off. Why are we worse off? Because when I started to work nine years ago, the boss would have us go on weekends to do the special work-- he would take all of us...Not now, now that work you have to do during your [regular] time to work...We are worse off."

"...now the change that you are talking about, is now happening to us-- [the supervisor] says, 'Now you have to clean the fire extinguishers inside and out, the edge of the walls, the walls, the stains, the glass doors and all of that.' Where are we going to find the time to do all of that?" (Los Angeles)

While contractors are not factoring these additional cleaning duties and floors into the time calculations, they also do not recognize the additional time it takes to get to various locations within or between buildings or time spent on tasks that support cleaning efforts. For example, non-union workers in Los Angeles talked about working 14-15 hour days because they have to drive to different buildings to clean: "We work 14 hours and get paid for seven, maybe eight.... Including the transportation [between buildings]." They are not paid for this travel time. In another union group, a worker described how bathrooms are not located near each other and how she has to walk long distances between them. That time is not factored into calculating how long it should take her to clean her assigned bathrooms. Other groups described similar challenges including unpaid time spent by janitors who have to don a uniform to clean laboratories, who have to go to a different floor to refill their cart with trash bags, paper, and other supplies, or to go change out their cleaning water.

#### **Punching In and Out**

Lastly, janitors talked about the impact of administrative tasks that reduce their work time, such as the new practice of having to punch in and out when they arrive and leave work and when they start and end their breaks and lunchtime. Punching in and out can add to the amount of time janitors are at work, for example while they wait to actually punch in, or can result in lost time from work and/or losing actual break time:

"Because of the 10 minutes it takes me to go down from the 23<sup>rd</sup> floor to the first, where we take our breaks. I have to go down in time to punch out, because if I don't get there in time and my punch-in time is wrong, they bring me a paper to sign. So that's where I lose time, because instead of working those 10 minutes in the building, vacuuming, leaving a job not even at 100% but at least at 60%... I can't do it. Why? Because I have to go down to punch out for the break. And I go rushing around to get there to punch out." (San Diego)

### Equipment and Supplies

Workers in the focus groups described three main ways in which changes in equipment and supplies impact their workload. They talked about the use of backpack vacuums and their concerns about

resultant ergonomic and safety injuries (also discussed in **Section E** and **Appendix A**), about how new green cleaning supplies require more steps and more time to complete a given task, and about the poor quality of equipment and lack of supplies.

The use of backpack vacuums and green cleaning supplies were described by workers as part of the shift toward more environmentally-friendly and energy conserving practices. Several groups shared that the challenge of green cleaning supplies is that they do not effectively clean, or take more effort to produce desired results:

"...it is a chemical that doesn't harm the worker, the environment, and because, supposedly, [the company] is working towards keeping the environment free from contamination. But, what is it made of? It is triple the work. Why? Because the chemical is basically made of water... not even with overtime, not within your eight hours are you going to clean what that little water couldn't do in one or two months." (San Jose)

One worker from Orange shared about personally investing in purchasing traditional cleaning supplies, since she could not get the work done with the green cleaning supplies provided by the company: "What I do if the chemicals are organic or whatever, I use the traditional ones, because although I invest my own money and people laugh at me saying, 'Why do you invest your money in the company?', it is to speed up my work..." While everyone else in the focus group expressed that was against policy, this example suggests the length workers may go in order to complete their tasks.

Workers also talked about lacking, or having poor quality, supplies and equipment, which they attributed to employer interest in reducing costs, and how this made it challenging to complete their work duties. While a lack of supplies or inadequate cleaning tools may not be new concerns, these challenges become more acute given the other factors that have changed over time and are also contributing to an increased workload. For example, a worker from San Jose described the extra work required to obtain adequate supplies such as toilet paper and hand sanitizer to replenish these items in bathrooms. In a focus group exchange among Los Angeles non-union workers, one worker described how employers asked janitors at her site to clean, rather than replace, disposable garbage bags because they want to save money. Another worker, in agreement, shared a similar experience about ultimately repairing a scrub brush because the supervisor would not replace it, "...now when the brush is really worn out, you have to push harder, with more force, and this injures you, tires you out. So, therefore, I repair them, I fix them, because I prefer to invest 10 minutes instead of going around with a hurt shoulder for a whole week."

The following quote summarizes the general sentiment across focus groups about the challenges of green cleaning and workload, including the financial motivation of employers instituting eco-friendly cleaning practices, and how the trend towards green cleaning has not resulted in modified duties or more time allocated for additional duties, such as recycling:

"Something that I think that has hurt us in all of this is when, like in the last ten years, green cleaning was recommended. We used to vacuum with the vacuum with the red handle, yes? From there, they implemented the backpack ones...Why has this increased the density of work? Why have we lost in all of this? It has injured us because to carry those vacuums on your back-- I vacuum three hours a day, five days a week, that motor that is in the back, that heat on my back for three hours. It is not the same...also with green cleaning, everything is recycled: paper, everything, everything-- there are more garbage cans. You have to divide all that garbage, there are more garbage cans to take out, now you have to turn out the lights, have to check everything when you leave. That work was not ours and now they are implementing this in the buildings to benefit the companies. Because the owner that has that program can charge the tenants more and get that little star like the hotels." (Los Angeles)

### Scheduling

Janitors identified the **"3-2" schedule** as a contributor to workload concerns. Under "3-2," different tasks are carried out on assigned days, so that instead of vacuuming every day, for example, workers vacuum on Wednesdays. While this was adopted in order to stretch out work over the week or justify less personnel, and perhaps potentially reduce workload by distributing tasks over time, janitors described that this has greatly affected them by creating more work. Workers described how vacuuming only once a week meant that on the day that they do vacuum, the work is that much harder because a whole week of dust and dirt has accumulated:

"What they don't think about...when you vacuum on another day, or when you are due to do it in a week, you take three times as long as if you did it daily. It is more tiring for you, for your back. In the same way, they say to us, 'Dusting is once a week.' Well, yes, but then it's full of dust and dirt...They are not thinking about how they are going to get a complaint from that...but they are hurting us in that manner... because vacuuming a complete floor once a week is very heavy work." (Orange)

The San Jose group described problems when the trash is not taken out each day: "it is getting full of cockroaches and rats. Many. There are many cockroaches and many rats. They are putting traps out now...in the kitchen, under cubicles. Why is it worth it to do that?"

In fact, janitors have at times received complaints or inquiries from building clients when a task was not completed, or have faced an angry supervisor when he/she received a complaint. Sometimes clients do not realize that a contractor has this schedule and does not plan to complete each cleaning task every day. One janitor described how a client asked her why she had not vacuumed, since this client was still being charged the same rates as before. This worker said managers have told them they should avoid telling the client that the work is not going to be done in the same way. Lastly, the "3-2" has been used to justify assigning janitors additional floors to clean, with the presumption that they can clean more floors since they are not completing as many tasks on each floor.

### C. Employer Treatment: The Social Context of Workload Pressures

Companies take advantage because they know that people want to work, and they know that people are going to look for any way that they can get work, because you need to bring money home to your family. – Sacramento

Janitor concerns about employer treatment were a common thread throughout the discussions and shape employer-worker interactions and workload pressures. While some groups shared positive experiences in addressing workload with supervisors (see **Moving Forward, Worker Recommendations, Section F**), this was not the norm. Stressful supervisor and worker relationships

manifested in multiple ways and exacerbated the pressure workers feel about workload. These included:

- how supervisors monitor workers' performance,
- how supervisors respond to requests for leave,
- how coverage for worker absence is managed,
- how new hires and younger hires are treated and the resulting inter-worker dynamics
- employer retaliation, and
- wage theft.

An overarching sentiment across focus groups was that workers feel the unrealistic workload represents a lack of respect and being taken advantage of by employers:

"And now we are dealing with the work overload. All of the workers in the building are stressed... We are at lunch and we don't eat our soup or eat it quickly, if we even go to lunch. There are times we prefer not to go to be able to finish the work. Why? Because we need the work, we need to work. But the companies are taking advantage of us, of our hands, our body, and I don't agree with that." (Orange)

#### Supervisors monitoring of performance

There were many examples of interactions with supervisors in which workers described feeling disrespected by how supervisors monitor performance. Workers shared that supervisors excessively commented on how they should clean. Janitors in Los Angeles recalled a time when supervisors worked side by side with them, but now "they want people who are nagging, nagging you without regard for the work, your health, anything." Similarly, a worker in the non-union Los Angeles group shared the following: "and you tell them, 'okay,' that you are in agreement with what they say so that they leave you in peace and stop walking behind you, repeating, repeating, repeating the same thing. It is a pressure that I can't stand, I feel like I'm going crazy." The Sacramento group discussed supervisors lowered her self-esteem by telling her, "Your work is of the lowest quality... Your work is disgusting," though the clients were pleased with her cleaning. The San Diego group shared stories of supervisors telling "the leads" to pressure workers to leave when they wanted to cut staff and suggested that using demeaning language when monitoring was a way to pressure workers to leave.

#### Stress when asking for leave

Workers also described strained communication when asking for leave for personal injury, family emergencies, and vacation. In the Sacramento group, for example, a worker described how she has changed how she asks to leave for emergencies or urgent matters based on past experience with supervisors who denied her requests: "...they [the supervisors] have taught me to not give much explanation, no more than say, 'I am going to leave because it is an emergency, I am advising you, I am not going behind your back, I am telling you that I haven't finished my work, here is all that I have left to do,' and I leave." Even when a contract stipulates paid vacation, a worker in the San Jose group was told that they could not take and would not be paid for requested <u>and earned</u> vacation time because of insufficient coverage: "Another bad practice of the company is, for example, let's suppose that they are going to give you vacation. You have earned three weeks. They tell you, 'You know what? You can't leave for those weeks. I am going to give you one week, because I don't have anybody to cover you.'"

#### **Coverage for absent workers**

Another area of employer treatment concerns is how coverage is managed in the event that a worker is absent. In some cases, supervisors hire temporary staff or "utilities" to cover the absent worker's shift. However, focus group participants across sites agreed that supervisors often expected janitors to cover co-workers' tasks, but did not always provide compensation or overtime for this work. For example, a janitor from Los Angeles stated, "...we never really see overtime in our checks...I worked an hour over in December of last year and today I am still waiting to get paid for it." The Los Angeles non-union group said that one time, seven of 32 workers were out and those present had to finish their work and then complete the work (a floor and a half) of the seven absent workers, which they did out "of comradeship"—an expectation that workers would "help out." Workers who did cover for an absent coworker reported stress from having to do their own job, and also add in the extra work. Another non-union janitor in the same group stated that the boss said he would help the other workers to cover the shift of an absent worker, but then kept the earnings for himself. Other workers noted that when they must cover another shift, they often have to leave some of their own work for the next day or are instructed to do the minimum or "basic cleaning" which can pile up: "... the supervisor says to prioritize [the tasks to cover a shift]...but sometimes it's three days and three days of just taking out garbage, what happens? The work starts to fall. When that worker comes back to take their route, they come to see that work quality has gone down. And the supervisor wants that person to get their work quality to 100%." (Los Angeles)

#### New hires, younger workers and inter-worker dynamics

When new or younger workers are hired in workplaces that have already undergone significant staffing reductions, they are allocated and expected to shoulder greater workloads based on employers' new expectations. Younger workers described being asked to do the same work as more senior staff, but in half the time. Employers can also exploit the vulnerability of a new hire to deter workload complaints. One worker described what happens with new hires at their building:

"But, what happens when there is a new person and they give them an area that before was two floors for one worker? You are the new worker and the supervisor gives you a bit more to do; and since that person is new, he will say that, of course, new people have a trial period for three months. If that new person complains, they are sent away." (San Jose)

In another example from Orange, older workers were pitted against younger workers: "There are times when unfortunately they [the company] doesn't think about older people who can not work the same way, they have already given their best years and now don't work at the same pace...at times a younger person does [the work] faster and does more work...Later they say, 'If the other person can do it, why can't you?'"

### **Employer Retaliation**

Concern about employer retaliation also generates a significant amount of worker stress. In the context of workload, employer retaliation was described as designating a greater workload or undesired cleaning areas/tasks for certain workers and then issuing a warning if they are unable to finish. The San Diego focus group particularly highlighted the role of "unfair job assignment." These workers described that at times it was not that the workload itself had increased, but rather the way it was distributed unfairly targeted certain workers. According to them, janitors who were friends or "preferred" workers received lighter loads and assignments than other workers. One worker noted, "My manager told me,' I don't like you, so I am going to give you this [extra] work to do and I want to

tell you that you have to learn how to do the detailing more quickly so that you can finish." However, when workers are unable to finish the work for the day, janitors discussed how supervisors and managers respond with anger and may even assign additional tasks. This sentiment was summed up by a Los Angeles worker:

"When you are letting them know that you won't be able to finish the work that they are assigning you, they get very angry with you because being the building managers they want to force people to do more work. And in the moment you let them know that you won't be able to finish because you still have a certain amount of the work you were already assigned, the more they add on, they react with so much rage against you...I couldn't finish and I wasn't going to do a poor job with my work in order to complete more work...So my co-workers and I received 10 warnings...it is so stressful when you are working under this huge pressure... it is not that you want to cry, because crying won't solve the problem, right? But at times you begin to remember all of the humiliation they made you feel and you end up crying...I have gotten to the point where I tell them, 'You are not accustomed with how to treat people, it seems like in your country you only trained animals or corralled cows.'"

#### Wage Theft

Lastly, workers described experiencing wage theft when employers do not pay for extra hours or at times pay "by the job" without acknowledging that the workload results in longer workdays. Workers in several groups described not being paid when they work an extra hour or help out if someone is absent as noted above. In San Diego, a worker described how their extra time is not recognized: "Until now, we haven't seen, 'Hey, pay them for the time they stayed late,' we don't see that. [Company] doesn't remember that we got out late". Workers in the non-union group mentioned similar experiences of working an extra hour to finish up work, but then not having that extra time recorded and not being paid for it.

Workers in the non-union group in particular talked about how they lose out on overtime pay. These janitors said, for example, that they are told they have a set number of hours to do a job, and have to finish within that time. If the workload is not realistic and they need to work longer, they will not be paid for it. Similarly, they can also be hired "by the job," with the same result; they often have to work longer hours and do not get overtime pay:

"What they say to you is, 'You have 8 hours or 6 hours...but if you do more, they aren't going to pay you for it. You have to finish the job in those hours. If you work more, that's your problem.' That is what they say to you. And so you have to go around like that, sometimes without even a break." (Los Angeles non-union)

One non-union worker described being paid minimum wage as an improvement: "Something good that has happened is that when I started they didn't even pay the minimum; it was way below minimum. Now, at least, we are paid minimum. That's a good change." However, workers in this same group mentioned feeling pressure to do more work as a result of the increases in minimum wage. "Companies are now thinking, 'Since I have to raise your wage, you have to do more work.' That is what is happening, the wages went up, but the abuse also went up." (Los Angeles non-union)

## D. Workers' Response to Workload Demands

There are three floors. I can clean two and vacuum, but not the third. That third one, the last one, I just do what I can...if I only had time to take out the trash that's what I do. But then on another day, I have to leave the first floor to make sure I do a good job on the other one. That's how we vary it. We have to. – Los Angeles

Janitors in all groups described the sense of pressure they feel as they rush and hurry throughout their work shift to try to complete their assigned tasks. Even with the hurrying, it is often not possible to complete their work. This section describes how workers respond to these workload demands by:

- Juggling tasks to find a way
- Working longer hours and missing lunch, breaks

#### Juggling tasks to find a way, "hacerse las mañas"

Workers commented on how they have to prioritize and distribute tasks over the week, taking short cuts, skipping breaks or lunch, and otherwise trying to complete as much of their work as possible. Some workers said they had to complete all their work no matter what. It seems that on a daily basis, janitors are juggling and making quick decisions about how to manage their work to get the job done and avoid a warning. This too adds to their stress. Some examples include:

"If we are cleaning carpets, you just pick up with your hand what you see [on the floor], and move on. Those are some of the tricks you pick up with experience. There's no way we are going to bring out the vacuum for a piece of paper." (Los Angeles non-union)

"You distribute your work and say, 'today I will dust here to there, I will detail this section, then tomorrow I will do that, and the next day will do the upstairs'. You have to get organized so that the work comes out how it's supposed to." (San Diego)

"It's like she says, we now have experience, 'colmillo.' And you know, if you have five floors, you go to the first, if you have to detail it, you leave it. Because you don't know if the next one is dirtier. First you take out the trash... and then you come back to vacuum...I leave the light on and come back with the vacuum to where it's dirty. Because sometimes you don't know, if there are a lot of floors, how the others will be, and then you don't have time to do it all." (Sacramento)

"Bathrooms, well we are going to give them priority. The basics. And then what we can leave aside stays there. That's the way in which we have to go about doing our work. And sometimes they [supervisors] come and say, 'Hey, can you do this for me here.' I say, 'Okay, what do I leave then. I'll do this, but tell me, what should I do first?'... I tell my coworkers, we are at fault when they keep doing that to us. They tell you 'You can do this in five minutes,' and then you do it, and then you do it, and they'll never stop." (San Diego)

Workers commented on how the different techniques they adopt to manage the workload can ultimately have negative consequences for the group. For example, when one janitor talked about buying her own traditional cleaning products because the green cleaning alternatives did not work or took too much time, another worker responded: "We get into a vicious cycle...it's not her fault... many people do that, find ways to do the work...but they buy another liquid to clean and then the things look cleaner and shinier. And so then the supervisor comes and says, 'How come she can do it, and you can't? So if you keep on having it come out this dirty, I'm going to give you a warning, because the other person gets it very clean." Although workers described receiving warnings when they do not finish their tasks, some mentioned that the supervisors know that the work cannot be completed and tell them to leave certain areas or not clean some sections as thoroughly. One worker from Sacramento talked about how she told her supervisor, "I can dust or I can mark the carpet to show it's been vacuumed, but I can't do it all, there are three floors.' And the supervisor said, 'Okay, just try to make it look clean.'" Another worker noted, however, that even if the supervisor has told them to not clean some areas, they could still get warnings if it is not clean.

#### Working longer hours and missing lunch, breaks

Workers in four of the groups reported working longer hours, either arriving early or leaving late, and all groups mentioned missing breaks or taking shorter lunches.

"You start at 5:30, but at 4:30 workers are already going up...then they don't get a lunch, maybe 10 minutes only.... Just to eat something and keep working... They are scared of [the supervisor], and so they do whatever it takes to get the job done...even if they work longer because they don't want the warning and the supervisor is vengeful." (Los Angeles)

Missing breaks or lunch is more common than working overtime, since the latter is often not allowed. All groups included comments about cutting down their breaks or lunch, though some workers also said they would never give up their break. Janitors in one group described signing a paper to confirm they had taken their break, even though they had not. In another group, a janitor said workers say they took their breaks when asked, even if they had actually skipped them. Some workers described that they were not allowed to work longer hours and that they would receive a warning if they did not end on time. Non-union janitors said they have no specific work hours nor break times, and they usually eat in the car when driving between buildings. All of the non-union workers said they do not receive the required 10-minute rest breaks. A comment from a janitor in Orange exemplifies common issues raised across groups about the pace and challenge of completing the work in a day:

"Right now we are facing excess work. All the coworkers in the building are stressed. We leave almost crawling because the vacuum makes it heavy work. ...and every day, 'No, don't do it here, do it there!' 'Is it dirty upstairs every day?' But no, how are we going to leave it dirty? We do what they tell us. The other day something else came out badly because there came the warning, 'Look how you left it.' But they're telling us, 'put effort downstairs and not upstairs,' and later, 'upstairs and not downstairs.' And then the warnings come. So then, what are we to do? Stressed... We are at lunch, and I think we just eat some soup or whatever really quickly, if we take the break. Sometimes we prefer not to stop so we can finish the work. Why? Because we need the job, we need to work. But the companies are taking advantage of us, or our hands, of our bodies, and that is something I do not agree with."

## E. Impact of Workload on Health

Personally, as the years have gone by there has been more volume of work, this big excess of work over a period of eight hours affects our bodies a lot. While the body is in movement, it is active, you feel a comfort in that – in the activity. But when the weekend comes, your body starts to relax, and you even feel sick. You feel like you are having these illnesses from so much excess of work, so much pressure. – Los Angeles

In this section, we describe how workers perceive workload to be associated with their health, including physical and mental health, as well as the impacts on family life.

### Job-related Injuries

#### **Bodily Injury and Broken Bones**

Janitors in five groups described instances where, because of rushing and the pressure to complete tasks on time, they or a co-worker fell or hit something, resulting in back and leg injuries or broken bones. A janitor in Los Angeles described one such experience: "That morning it was 2:45 am and I was about to be done, but the boss came and said I had to vacuum the executive's office. I had to run and vacuum, and, what happened? I got caught up in the vacuum cord and it pulled me backwards and I couldn't stop myself. I put my hand out and broke it. Because of the excess work, and the running around we have to do."

Workers in all groups noted that they might be more prone to falls and accidents when they are tired from a fast-paced work environment and excessive workload, coupled with lack of sleep and night shifts.

### **Ergonomic Injuries**

All groups described concerns that relate to ergonomic hazards, and how these are exacerbated when working quickly. Repetitious work was a significant factor and workers also mentioned having to carry and use the vacuums, lifting heavy items, and having to use a lot of force when cleaning with the green cleaning supplies. Workers described injuries to their backs, arms, shoulders, knees and hips. A few described having operations for their injuries. Several workers talked about going to the doctor and being told their injury was due to repetitive and excessive work. A worker from Orange explained how, when she injured her right hand from the repetitive motions involved in washing chrome bathroom doors, she was told by a doctor to use her left hand: "The left is also becoming damaged... at night the pain is so bad in my hands that I truly don't wish this on anybody." Workers expressed how incurring physical injuries from repetitive work compromises the health of janitors over the long run: "I have a friend that had operations on both hips, both shoulders and both wrists, and also has about 25 years of working as a janitor...we are all going to end up like this because this is where they [employers] are leading us." (Los Angeles)

Workload factors create a context that can place workers at risk for adverse health outcomes. A nonunion janitor in Los Angeles shared their story, which illustrates the interplay of factors involved and the resulting injuries and health problems: "When I stopped working nights, I could no longer sleep. I would fall asleep, I don't know, at 12:00, 1:00, 2:00 in the morning...and the other day I got up at 6:00 in the morning, but my head was hurting. My head was really hurting. I injured my knee, because we always have to go around on our knees picking up garbage that gets left under the chairs. My waist, I injured my sciatic nerve because I fell and hit a rib and injured myself, [and] had to stay like a week in bed. And nothing changes, I told the boss that I was injured, that I was paying for the doctor and he told me, 'I paid you. It is not my fault that you have been foolish and fell...' the effect of work on your health is too much."

#### Lack of sleep

All but one group explicitly cited lack of sleep as a health concern. Contributing factors included their hours and working at night, excessive stress and pressure from work, and ergonomic injury such as waking up repeatedly to switch sides after waking up with shoulder pain. At times workers associated lack of sleep or not being well rested with other health conditions, such as waking up with or suffering from headaches, or having high blood pressure, and heart conditions.

#### Treatment for job-related injuries

While the focus groups questions did not thoroughly probe how workers were treated for injuries, a handful of workers described **barriers to accessing workers' compensation** for occupational injury. Janitors stated that some companies have strategies that encourage workers to remain silent about injury, fail to adhere to doctor recommended restrictions on work duties, and do not provide clear information about the process for filing a claim. Workers also raised concerns about being treated by company clinics for work-related injuries and a few referenced comments their Kaiser doctor had made about an ergonomic problem. For example, a worker from Orange distrusted the company clinic because "You know that they work with the company' and felt that they provided care in the interest of the company rather than that of the worker."

### Job Stress and Mental Health

Stress from the excessive workload and employer treatment discussed above (**Section C**) is a key factor in worker mental health. As one non-union worker shared, "The pressure is so great that I can't stand it, I feel like I'm going crazy, with [the supervisor] behind me all the time repeating the same thing!" The changes that result in increased work load – larger spaces to clean, reduced number of staff, and changes in tasks over time – also contribute to a high-stress work environment. Some workers described feeling anxious, tense, and even fearful when it was time to go to work. Workers from San Diego described a constant fear of being let go, worriedly thinking, "At what time are they going to fire me?" Workers' stress is depicted in some of the images workers selected in response to the question, "How do you feel about your work and workload?," shown through two examples below (More on the imagery activity in Appendix B).



This is me in my workplace. I'm inside this cactus jumping around from place to place without stopping, to be able to do what I need to in my 8 hours of work. If we think about what it feels like to be at work – when I get to work it's like I am inside this cactus. You are just not calm. -Los Angeles



This more or less represents my work. That is to say, in the areas that we work we are always alone. If we injure ourselves or feel something, no one listens to us. If we ask for something, we are always alone, because there is no one.

-Los Angeles non-union

Workers described feeling tense in their daily lives outside of work as well. Due to exhaustion, a janitor from Sacramento stated, "In your daily life, any little thing can cause you to explode, whatever little problem-- if you have to make dinner, have an appointment, you have to work, all the time watching the clock." This constant stress wears on the body and on workers, as a janitor from Los Angeles documented:

"...the stress, don't talk to me about stress, because I didn't have problems with my thyroid, now I suffer from thyroid problems. I didn't suffer from the sciatic nerve, now I suffer from sciatic nerve [injury]. I didn't have any of that and now I have it all. But, since the volume of work started to increase, the stress has become too much and then you get all of these illnesses."

### Impact on Family Life

The impact of workload on family affects the wellbeing of many workers. Workers described how *exhaustion* and *work shifts* take a toll on relationships with children and partners and limit the quality of family time. A janitor from Orange shared how time off from work is usually spent recuperating from the stress and exhaustion at the expense of spending time with family:

"I think that this has a greater effect than all the stress, the work pressure and the excess of work that they give you, because when I get to the weekend...you want to take advantage of those days to sleep and rest... It affects us more when we have small children that want to go out-- as they don't know-- they want to go to the park...because my daughter says to me, 'I have been inside all day, I want to go outside, even if you just take me for a ride in the car.' 'No, hija, but I am also tired, I also want to rest. I don't want to deal with you all, I want to rest, I want to take free time for me.'"

Many janitors discussed major concerns shared about how work shifts coupled with exhaustion eclipse time for parental involvement in school activities and events. For example, a mother from San Jose recalls when she told her seven-year-old daughter she was too tired to attend a school event and that she should go with her sister instead; her daughter replied, "Mami, but, why? If you are my Mami, not her. "A non-union worker said that in addition to not being available to help with homework, not even having time to have a conversation with her son was affecting her health and family. Other workers described how workload-related exhaustion impacted the general mood in the home: "The family relationships change a great deal. We have become more aggressive, we are in bad moods, we have no desire to do anything." (San Jose)

Janitors recognized that companies require work be done at night, but described how working night shifts is so hard on families and wondered if there might be an alternative:

"I worked nights for seven years, and truly, the night worker is the one who does the most work, because your family relationship practically dies... Working during the day is less, because your work is normal and at night you are with your family and you can do activities...When I worked at night, I had to work-- would arrive home at 3:00 or 4:00 in the morning, but at 7:00 I would have to take my children to school...How can this problem be resolved if companies require night work? It is a difficult decision." (San Jose)

### **F. Moving Forward**

Our intention is that they listen to our voices...what we want is that the companies, the owners, the tenants are aware of the work we do. Because we do it all with all the love in the world, it's our work, we have family that depends on us.... that this should come to light, because it has remained in the dark for years and this is our fight, this [fight] is why we are here. – Los Angeles

In considering next steps for addressing impacts of workload on the health of janitors, this section will describe what janitors said in the focus groups about their views on the causes of the changes in workload, and their recommendations for solutions.

### > Rationale: What is behind these changes?

Janitors were asked their thoughts about the reasons that led to workload changes over time, and whether supervisors or employers had ever offered explanations. The rationale workers shared largely centered on company or employer interest in cutting costs and improving gains or achieving "more for less."

Workers across focus groups stressed financial reasons for why they thought there have been reductions in staff and full-time shifts. One of the reasons workers gave is **incentives paid to managers for reducing staff**. For example, the Orange focus group talked about how a supervisor at one site was paid \$500 for every worker he let go. Workers from Sacramento also described how supervisors who receive financial incentives or "bonuses" to save money for the company may be particularly motivated to cut staff. Other focus groups suggested that employer reductions in staff were tied to **contract negotiations and biddings structures.** The Los Angeles group shared, "Because the companies are getting the buildings with the least expensive contracts, obviously they are not going to lose, they make cuts. If there are 10 workers, they are going to cut two. They are going to leave eight in order to take back what they lost in getting the cheapest contract." Janitors also said the reason for part-time hires was a reluctance by companies to pay full time compensation and benefits. Workers from Sacramento, for example, stated that janitors requesting eight-hour shifts are turned down, despite the hiring of multiple part-time workers, so companies can reduce what they pay in benefits.

Another common theme across focus groups was the role the **recession** played at least initially in economic impacts and the push for less expensive contracts, as well as the **pressure from non-union contractors** who offer lower bids. The San Diego group said they have heard employers say, "It's that we are in an economic crisis." However, workers generally stated that the recession was a "pretext" supervisors used as a rationale to cut costs and, in turn, workers and pay less in benefits. Several Los Angeles workers agreed with one co-worker's statement, "...the argument they have for everything-all that they do with making [workload] changes is that it is all based in the recession, though we have already come out of that, we already lived that, we already passed that, but they continue living in that recession. But, it is nothing more than for their convenience."

### > Solutions and Recommendations

Janitors emphasized that solutions should engage a broad range of stakeholders, including workers, clients, employers, the union, and company staff. The role of workers as individuals and collectively, across classifications and shifts, was identified as vital in the effort to address workload concerns. They highlighted the importance of worker voice in decisions that affect their health and emphasized how the decision-making process tied to how work will get done often fails to involve the workers. Workers highlighted that the reason that supervisors and building managers should be encouraged to seek solutions with workers is so that all stakeholders can be "on the same page" about what the janitors' workday and load actually entails and devise shared goals for attaining outcomes.

#### **Worker Recommendations**

#### 1) Workers need to speak up about workload concerns.

Janitors across locations discussed the importance of workers "speaking up." Workers described the need for collective support among workers to encourage each other to stand up for themselves: "...you have to be firm in your decision, that when they ask us for one thing or something extra, this means saying, 'You know what? I can't, I don't have time.'... or we go back to the same situation" (Orange). While the concerns about employer treatment and retaliation have been previously noted, some janitors described experiences in which they drew a line, did not forgo breaks, or told supervisors that they could not do everything asked of them. Workers also stated that it is important to encourage all workers at a site to commit to resist an unreasonable workload because when a few workers race to complete work tasks, all workers are harmed. Particularly for union janitors, workers

mentioned the importance of speaking up so the union could advocate for them: "We as delegates are obligated to be responsible for defending our workers when they are affected by the company...but if we don't receive the corresponding complaints, we can't defend the case." (San Jose) Further, when workers "stay quiet, they are going to accumulate warnings" rather than set in motion union support to fight a worker's case. (Sacramento)

In a couple of groups, workers described positive outcomes when they communicated with their leads or supervisors to address workload. For example, workers mentioned being able to let their supervisor know if they are not going to finish the assigned work tasks for the day: "They have told us to let them know with time if we are behind on our work, so that they can send help." (Sacramento) Another worker described that as long as they told their supervisor an hour before their shift is over, the supervisor would figure out how to help. In the San Diego group, a worker lead talked about how they have a team approach to problem solving and figuring out how to assign tasks to cover the workload needs.

Workers also gave examples in which supervisors were supportive when they asked for time off. In San Jose a worker described that she spoke with supervisors about wanting to attend her child's events, and they let her come in and leave early on certain days. In Sacramento, workers talked about how supervisors were supportive when they or a family member became ill or got hurt: "Go, first is your daughter and then your work. I will cover for you now and clean [what you have left to do].' So, the other day, he asked how my daughter was, and I find this to be surprising because the company also spoke to me to see how she was and if it was serious... and for this reason I say it depends on the supervisor."

Workers across locations suggested that breaking down the fear of employer retaliation and improved supervisor training are integral to creating a safe space for workers to speak up about concerns and result in creating solutions.

#### 2) Set realistic expectations in contracts and revise how work is assigned.

Another recommendation that several groups raised was revising how work is assigned and what is included in a service contract. Central to this recommendation is improving employer-worker communication and dynamics. Workers suggested that companies provide them with written job descriptions, as well as written notices of workload or task related changes, because supervisors may make changes that companies are unaware of and that may lead to increased workload or additional tasks. Workers also suggested that new companies be required by the union to provide clearly spelled out agreements detailing shifts and eight-hour work days that take into account the changes in the physical space that workers are expected to clean. The Los Angeles group suggested development of a "standard" that specifies a certain space to clean in a given time, that also accounts for breaks. In addition, workers across groups highlighted that the practice of assigning work by square footage is outdated and should be revised to reflect how workload has increased over time:

"Now there is more dusting, the floor is dirtier, and you have to take out more trash. All this takes your time and that's why one has to do more – run more work more quickly. They'll say 'but it's the same number of floors,' but you are working more quickly because it's more work and that's where there are more risks of accidents. Their excuse is always 'it's the same number of feet,' but it's more work and they don't want to accept that it's more than by the feet." (Los Angeles)

#### 3) Maximize the union's ability to support workers.

Union workers highlighted the importance of strong representatives who provided consistent and fair representation of all workers as well as the need for workers to file complaints with delegates. Workers across groups shared positive experiences about working with the union to address workload concerns. For example in San Diego, a worker described how they were staying late and feeling pressure about taking too long of a break, "and when I came with the union, thanks to it, they removed three floors of bathrooms." The Los Angeles group highlighted how working with the union can result in earning a minimum salary, benefits, and a reasonable workload. A worker from the non-union Los Angeles group who had been working with a union for a year stated, "when you have a union, you are part of a family; those that don't are orphans."

#### 4) Engage building managers and clients.

Janitors also stated that they thought building managers and clients/tenants should work with workers to devise solutions. Though some said contractors prohibit client-janitor communication beyond what is necessary to complete work tasks, joint conversations about work expectations may lead to a fair workload and opportunities to modify shifts/tasks to improve worker health and family life. Some workers described clients only in reference to them issuing work-related complaints, while others shared positive exchanges with clients that resulted in a more community-oriented work environment. In some cases, clients expressed appreciation for the level of work effort: "Yes, there are [clients] there who ask how you are or how you are feeling and things like that. 'Hi,' they say, 'You know what? I see that you go around detailing a great deal, don't do my office, just take out the garbage and leave everything else as is.'" (Sacramento)

#### 5) Develop policies to protect workers.

Finally, workers suggested the need for policy solutions, possibly legislation, to protect workers. Nonunion janitors expressed that not being a union member made them particularly vulnerable to exploitation. One non-union worker stated, "there should be a law that supports us...in the case of my boss, there is a lawsuit [for a wage dispute] from nine years ago, it hasn't resulted in anything. Nine years." Many janitors also wondered whether legislation could help articulate how to ensure a fair distribution of earnings between companies and workers. Union workers called for laws that protect against excess workload and promote equitable labor practice to prevent workers from competing for work:

"A law that can protect us in that they can't obligate or intimidate us to take on more work, because there are people that say, 'So that I can keep this work, what she can do in eight [hours], I am going to do it in six, five [hours].' And then, they [employers] take it from there, by saying, 'Oh, you got it and you got it, and because she can do it and you can do it and you can do it...' And if there was a law or something, an article or something that could defend us in this respect." (Orange)

### **IV. Conclusion**

In this study, janitors, most with over 10 years in the industry, reported an increase in workload over time, with over half describing that they perceived their workload had doubled. This excess workload manifests in a myriad of ways, including how work is scheduled, the increase in number and complexity of tasks, the unrealistic quantity of tasks for the hours worked, and the number of hours

distributed across fewer workers. Workers described how a high workload environment stems from and can reinforce tense employer-worker and inter-worker dynamics, and how the increased workload impacts physical health resulting in physical injury as well as work-related stress. The latter affects worker mental health and extends to relationships with children and partners. There is an immediate need to proactively address excess workload to prevent physical and mental health workload injuries among janitors. The impacts of workload and the stress associated with the social environment at work sites may have a cumulative effect on health over time.

To reach comprehensive and sustainable goals to improve janitor health, we recommend two key approaches to frame efforts:

- As workers also discussed, engage a broad range of stakeholders in designing and implementing solutions. Key stakeholders include workers and unions, employers, supervisors, building managers, and tenants/clients who each have interests and responsibilities. Each stakeholder can offer a unique perspective to the workload challenge and when invited to the decision making table can devise creative and equitable solutions.
- Efforts should be coordinated with an eye towards designing multi-level interventions. This means changes at work sites, within organizations or companies, and at the policy level.
   Addressing single issues such as the time allotted for assigned duties is important, but not sufficient to create lasting changes in worker health and wellbeing.

<u>Based on the focus group discussions and findings, we recommend the following for further study</u> and as potential future directions to address workload challenges in the janitorial sector:

- 1. Investigate ergonomic injuries and contributors in light of increased workload and equipment changes. Document extent of injuries associated with workload and assess the impact of risk factors including repetitive work and new equipment such as the backpack vacuum in the context of the increased workload. Also evaluate whether workers are seeing their own physicians or report ergonomic injuries as workers' compensation claims.
- 2. Explore to what extent workers are provided with accommodations and light duty work. Assess worker compensation compliance and ability to implement restricted work requests following injury.
- 3. Create systems to calculate realistic workload based on nature of tasks and number of workers. Consider a time study to evaluate the length of time realistically associated with different tasks, to address the limitations of calculating time based on square footage. Develop recommendations that either increase staffing or, when there is reduction in full-time workers over time, address how to re-distribute the workload among fewer workers over a greater amount of time to ameliorate worker exhaustion and injury. A time study should also assess factors such as compliance with break and lunch hours, time to get to and from work sites, and time to punch in and out.
- 4. Assess whether the green cleaning supplies in use are the best available for janitorial sector and institute practices that enable contractors and building owners to meet environmental goals while also ensuring realistic expectations for workload. Green cleaning supplies hold promise for worker and tenant health as well as the environment. However, green cleaning supplies, energy conservation efforts, and other "green tasks" such as recycling need to be accounted for in workload time calculations.

5. Conduct further investigation into reports of wage and hour violations, particularly in the non-union sector, and identify ways to influence workload demands in the non-union sector. Non-union janitors face the added challenge of not having an organizational entity that can act on their behalf. There is a need to identify mechanisms for intervention to provide "checks and balances" on the contractors' workload demands in the non-union sector and a path for negotiating realistic workloads.

Workers across focus groups expressed pride in their work and communicated a hope that by sharing their work experiences they might join in industry efforts to mitigate work-related risk and create healthy, productive work environments.

## Appendix A: Work, Health, and Safety Concerns

This appendix includes some selected quotes to illustrate how workers' described the health and safety hazards they experienced on their jobs (See Section III.A.)

Type of Concern	Selected quotes/Focus Group location
<b>Chemicals</b> (liquid cleaners, including green products, used for cleaning bathrooms, floors, etc.)	And, yes, the liquids, they don't tell you, like what she said, they give you an allergy over there [where I work] there is an oil that they give me for the bathrooms that makes my entire face red and my eyes red. But, it is because of the law that you have to apply this oil to the chrome surfaces in the bathrooms. (Los Angeles) there are chemicals that they are using now, "green chemicals" is what they call them. But, there is one liquid that supposedly says it is made from natural liquids, but what I have learned I am diabetic- what I have learned is that, for example, when I use this type of liquid that although they are saying is natural, my fingernails peel, the skin on my fingers peels off. Apart from this, when I
	use that liquid it is so strong that I begin to sneeze and cough. I can't bear it, because I feel that it is penetrating inside my body and giving me these symptoms (Los Angeles)
<b>Ergonomic Hazards</b> (bodily injury due to equipment, awkward postures,	And when you have to vacuum the entire floor, you end up with your back wet, here is where you feel it it's like a little white cylinder. I already have had surgery on my shoulder from this. And, later, arthritis: look at my finger. (Sacramento)
repetitive work, and work pace)	I think that it is the repetitive work, that is constant, that is affecting workers to the point that they get injured. I speak from my experience. Now, my left arm is injured and the right one was already. We are in the process now. They just told me that I have two torn tendonsI continue to work like before, they have never given me a break, never have told me "Listen, you have this, well you should go and rest for a day," never. So, that is one of the problems. (San Jose)
Safety Hazards (slippery floors, faulty equipment, glass and cut hazards)	Like if you have to carry the [bucket] of water taking the stairs if the elevator is broken To carry things up the stairs, the bucket, the mop, the vacuum; all of this up the stairs and you can slip on the stairs, and sometimes it is very difficult. (Los Angeles, Non-union)
	The vacuums we use many times have broken cordsthis happened to me, my vacuum where the cable here in the back is connected and was frayed. I had reported this to the supervisor, and he didn't do anything So, I cleaned that day and the whole thing sparked and the vacuum caught on fire behind me. The only thing I could do was quickly take it off and disconnect it. There was a

Type of Concern	Selected quotes/Focus Group location
	tenant working who was frightened and made the report. That is something that affects us a great deal, the equipment we have to work with that is not adequate and you assume that because they give us a safety meeting where they tell us that everything should be in a certain conditionBut they don't care, it is a lie, and, yes, that affects us because we use the work equipment daily. (Los Angeles)
	One of the dangers we have in our industry is that there are companies that obligate our workers to recycle inside garbage cans, to take out plastic, to take out glass, and that is a risk, very delicate workAlthough you have gloves, there is a risk There [company being cleaned] everything is free, they drink beer and everything, there are many broken bottles, and people have to put their hands [in the garbage can] to take out glass and many people have cut themselves. So, those are dangers that we should focus more on, there should be [trained/specific] people that recycle and not have a [janitor] do this. Or, they should put [recycling] bins. (San Jose)
<b>Stress Hazards</b> (stress/anxiety, employer treatment, lack of sleep, irregular meal schedule)	First off, you have to work at night, although your body becomes accustomed to a schedule, you still don't adapt. In fact, the human body doesn't adapt even if you want it to. That comes as a repercussion over the years in terms of your health and especially, insomnia. Other causes [of health concerns] are that you never eat at a regular hourThese are the effects over the years. (Sacramento)
	Also, through the stress, which makes people feel a lot of pressure, it results in ulcers. Even when you try to say: "Tomorrow I am going to eat well," you arrive home more exhausted, and they give you more work. So, you get up a little more stressed. Now, you are not at ease with your children, because everything frustrates us: the house chores, everything stresses us. When it comes time to go to work again, you say: "The same thing again." The pain in your body and everything, now all that is around [us] makes us angry. (Sacramento)
	The work that we do is very heavy, and through experience- my own and that of my coworkers- we suffer a great deal from migraines, suffer a great deal from arthritis. So, all of that affects us, and mentally also, because we don't sleep our eight hours, we don't eat our three meals, we eat once a day. Why? Because, we get up late, at which time we prepare our breakfast and the meals for the house and we leave to work. My schedule, which is comfortable for me, and, that is already my schedule, is [working] until 10:00 at night, something that is not normal. So, we are suffering many symptoms that we feel in our head. (San Jose)
	The tactic that they use so that you do the work, which they give in excess, is to

Type of Concern	Selected quotes/Focus Group location
	say: "How come you can't do it if the other person can do it?" Even though it is not certain that the other person can do the work. And that is one way they pressure you to race aroundFrom racing around, I cracked my knee and that is when I got hurt, from running around like that. And they don't think about how racing around, you can get hurt. (San Diego)
Lack of emergency plan	For me it is our safetyin our building, we don't have what they tell us to do: "Do you know what? In an emergency, you have to run. You must take the stairs." But, they don't tell usI have been in this building for three yearsbut I don't know where the stairs are on certain floors, because my key only opens the floors that I do. That is the primary problem. Because if I have the other keys in a fire or something, I can go to the other building where there are stairs. (San Diego)

### Appendix B: Attitudes toward Work and Workload

As part of the focus groups, facilitators used an associative imagery activity in order to gain insight into janitors' emotions, memories, and thoughts about their work and workload. This is a qualitative method that involves using carefully selected images that serve as triggers to discuss abstract and difficult concepts. The images selected for the focus groups in this report have been used previously in research projects in occupational health (Gong et al., 2012). The associative imagery exercise served as a bridge to asking more substantive questions about workload and to establish the focus group as a safe space for candid dialogue about the challenges and nuances of workload and worker health and safety. Specifically, participants were asked to select an image that represents a sentiment, emotion, or attitude in response to the question, "How do you feel about your work and workload? How do you feel about what you have to do during your workday?"

Below are selected images, followed by participants' responses that demonstrate how the image functioned as a catalyst for describing their feelings and attitudes about their workload. For some participants, the actual image reflected a concrete experience or emotion, while for others the association was a metaphor for how they feel about their work. Some janitors talked about how an image represented the pressure and stress they feel at work. Others talked about the impact on their family life or described aspirations and wishes for a better future. At times, the same image triggered different emotions or responses. The following excerpts encompass common themes across focus groups.



One of the most frequently selected images was of the **Fair: Flying Swings**. For some workers this image prompted feelings about family, about missing out on spending time with children, and aspirations for their children's future:

Now, I chose this one, it is like a fair. I have my children and, at times, due to the workload and the responsibility to arrive on time, there is not enough time in the day and I cannot share time with my children, but I love to. Yes, I identify with this. (Los Angeles, non-union)

I also, like my co-workers, feel very humiliated in my work. But, when I see this flying, I say, 'My children will rise above.' I have faith; I don't want them to end up like me. (Orange)

For others, this same image served as a metaphor for the seemingly endless cycle of worksite struggle and, like the janitors above, the desire for workload changes that would improve the quality of life:

I chose this, it is a mechanical game, this, well, it goes in circles. This is what happens to each one of us in our worksites. What they don't give us to get done! But always everything is going in circles and everything always stops in the same place, nothing changes, nothing changes. (Los Angeles)



One worker who identified with the image of the **Butterfly** is thankful to have work, but describes how she wants to be

able to fly around, free from the frustration she feels about the magnitude of her workload:

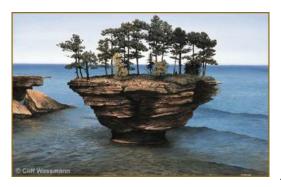
Okay, I chose the little butterfly because this butterfly, she doesn't think, she only thinks about flying, this is what I want. When I arrive at the building-- I give God thanks for my work, right, because many people outside don't have work and go around complaining-- but, when I am already entering the building, I would wish that I could go back, just thinking about the 14 floors of bathrooms that I have to do. Then, I wish I could be this little butterfly, have wings to fly and not enter this building; in order to feel like her, and not think, not feel frustration, not have anything, only to go about freely. That is what I would wish to be, like the little butterfly. (Los Angeles)



A janitor's reflection about the **Orange Mountain at Sunset** image highlights how workload changes are associated with discomfort, displacement, and a longing, as a community of janitors, for working conditions that were better in the past:

I chose this photograph. This that is here, I imagine is like a forest, and that it is like a mountain in the middle of the forest... Before, my coworkers and me, in the past we felt like a forest: everything was okay, peaceful. The mountain, literally- so to

speak-- appearing above the horizon and growing, taking us from that forest that little by little it has taken us from that comfort, from where so many of us felt good. We are on top of that mountain-so to speak- wanting to return the forest again, where we felt comfortable. (Los Angeles)



The **Island** image was another one of the most frequently selected images. Two workers below reflect on the island as a metaphor for working conditions and worker experience: achieving the seemingly unattainable (reasonable) workload and the isolation of feeling unheard:

I chose this one. For me, I think and believe that it is something that I see that is out of reach, of seeing some future for us janitors, and that we haven't been able to achieve what we want to have: to not have a heavy

workload. (Orange)

I chose this one because it represents more or less my work. That is to say, in the areas that we work we are always alone. If we injure ourselves or feel something, no one listens to us and if we ask for something, we are always alone, because there is no one. (Los Angeles, non-union)



The **Sunset** was another popular image among focus group participants. Though the following responses differ both speak to the heaviness of their workload and the work pressure:

Well, for me this represents a happy moment in my life when you are on vacation, during your weekends. Moments when you live the life many times, because at times the frustration continues to weigh on you wherever you go because the truth I believe is that this is repetitive and it is what we see most in our work areas. Like what my coworker here said, we are happy in one moment-- perhaps you have gone to the beach, you forget about all of this- but when you are entering the building again there is like a [computer] chip that changes you, but like I said: it is not because of the work-- because you love your work-- but the pressure that you feel bearing down on you...it is what makes you lose that beautiful feeling that you lived just two, three days before. (Los Angeles)

I more or less understand that in the water it is like you are drowning, and the sunset that is turning into evening and you haven't finished your work. That is how I understand it. (San Diego)

Reflecting on the same **Sunset** image, this worker from Orange found the ocean to be a call to action:

For me the ocean is a reflection of what we are living, that it is something that we are never going to be able to stop if we don't speak up. (Orange)

### References

Hinkley S., Bernhardt A., Thomason S. "Race to the Bottom: How Low-Road Subcontracting Affects Working Conditions in California's Property Services Industry." UC Berkeley Labor Center 2016.

Gong F., Castaneda D, Zhang X, Stock L, Ayala L, Baron S. "Using the Associative Imagery Technique in Qualitative Health Research-The Experiences of Homecare Workers and Consumers." Qual Health Res. 2012 Oct;22(10):1414-24.

Mauss D, Li J, Schmidt B, Angerer P, Jarczok M. "Measuring allostatic load in the workforce: a systematic review." Ind Health. 2015 Jan; 53(1): 5–20.

Seixas N., Domínguez C, Stover B, Simcox N. "Janitors Workload and Health and Safety." Department of Environmental and Occupational Health sciences, University of Washington 2013.