Risks and Hazards for Recycling and Waste Workers in the Bay Area
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In Partnership with
East Bay Alliance for a Sustainable Economy

The International Brotherhood of Teamsters
Joint Council 7 and Local 350 and Local 70
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I. EXECUTIVE SUMMARY

Many occupational health risks and hazards are associated with work in the waste and recycling industry. This 8-week Occupational Health Internship (OHIP) project, in partnership with the East Bay Alliance for a Sustainable Economy (EBASE) and the International Brotherhood of Teamsters, 1) aimed to map the waste and recycling industry in three Bay Area counties, 2) describe the laws and regulations that apply to the industry, and 3) begin to assess the occupational risks and hazards associated with the waste and recycling industry through worker surveys, and site visits and interviews with managers, including health and safety staff. Worker interviews focused on Material Handlers, who manually sort through waste streams for recyclable materials. Twenty workers were interviewed at 2 union sites, and site visits/management interviews were conducted at 4 union sites (including the 2 where workers were surveyed) and 1 non-union site.

Seventy percent of workers reported experiencing an injury or illness related to their work, with a unanimous report of symptoms related to dust exposure. Research on laws and regulations as well as employer interviews highlighted the gap in enforcement of health and safety standards for workers. A brochure was created to share results and worker quotes with recycling workers, distributed through project partners.

This project emphasizes the importance of continued development of engineering controls to reduce risks and hazards associated with this work, as well as ways to ensure that these practices are implemented at worksites. The project also emphasizes the importance of strengthening federal and state exposure limits, specifically for dust. Furthermore, the project highlights the need for additional routine inspection for compliance with worker health and safety standards at waste and recycling sites.

II. BACKGROUND

The many occupational health risks and hazards in the waste and recycling industry are acknowledged by employers and workers alike. Not only do waste workers have higher fatality rates than either firefighters or policemen, but they also experience high rates of injury and illness as a result of their job (In Harm’s Way, 2008). In such a high risk industry, we must make worker health and safety a priority, and continue to work to mitigate risks and hazards of the industry.

Recycling and waste is an almost invisible industry—very few of us know what happens to our recycling once it leaves our bins. Yet the industry currently employs over 350,000 workers in the United States, who come into contact with everything that we put in those bins (Bureau of Labor Statistics). These workers are involved in the collection, transfer, and processing of waste and recycling. Jobs in the industry include drivers, heavy machinery operators, mechanics, and material handlers (sorters) who manually sort through waste streams in order to isolate recyclables.

The invisibility of the workforce in the industry is part of the obstacle to broader public understanding of why health and safety of workers in the industry is important. California is moving toward a goal of a 75% diversion rate—the percentage of recyclable materials that are diverted away from landfills to reuse or processing. As our society gets “greener” and works towards these increased recycling mandates, we can expect the industry to grow. We must ensure that health and safety measures grow as well in the face of the demand for recycling and the increased workload that workers will face. By doing so, we can continue to build on the
foundation of labor-community-environmental coalitions that are needed to ensure adequate health and safety in this industry.

**Project Objectives**
The project objectives were the following:

1) Collect background information about the waste and recycling industry, particularly within the Bay Area.
2) Develop a “map” of the recycling industry in three Bay Area Counties (Alameda, Contra Costa, and San Francisco.)
3) Detail regulations and policies that apply to the industry, especially those that apply to worker health and safety.
4) Adapt survey tools to interview workers and managers in the industry focusing on injury and illness rate, use of personal protective equipment, and implementation of health and safety training.
5) Conduct interviews with workers and managers.
6) Develop recommendations for improving the health and safety conditions in recycling plants, to share with workers, EBASE and Teamsters.

**III. METHODS**

**Worker Health and Safety Survey**

The 37-question survey was developed in Spanish and English based on a similar survey conducted by the Los Angeles Alliance for a New Economy (LAANE), a sister organization of EBASE’s that is currently working on a campaign to improve conditions for workers in the waste and recycling industry in Los Angeles.

Our project focused on material handlers, because of the accessibility of this group and the fact that they come in direct contact with waste streams.

Representatives for Teamsters Local 350 set up visits to two sites at which they represent workers. At one site the Local requested a set number of interviews. At the second site worker interviews were obtained by employer permission.

Selection of workers was done by supervisors at both sites. Only material handlers/sorters were interviewed. Employees were sent in one after another to a private room and informed that their answers would be kept confidential.

The survey structure can be characterized as a *structured interview*, with the surveyor recording answers and leaving space for discussion. All employees were given the option of completing the survey in English or in Spanish. Surveys were administered exclusively by the intern at site 1, and with the help of another intern at site 2, and took 20 minutes to complete on average.

**Employer Health and Safety Interviews and Site Visits**

Interviews were semi-structured, working off of a questionnaire developed with the help of the academic advisor at UC Berkeley, and supervisors at EBASE. The questionnaire generally took 20 minutes to complete. Site tours were done at all sites where employers were interviewed. The tours were led by either the employer or a Health and Safety officer. On all occasions but one, the intern did site visits accompanied by either another OHIP intern or an EBASE supervisor.
Criteria for examining sites was informal. The intern looked for health and safety hazards that had been highlighted in the literature. All site visits were followed by a debrief with supervisors at EBASE.

**Key Informant Interviews**

Over 65 contacts were made with city staff, companies, non-profit organizations, waste associations, and government agency staff including the Environmental Protection Agency, CalOSHA, and CalRecycle (the state recycling agency). Interviews with key informants were all conducted informally, and ranged in length. Key informants interviewed illustrate the broad scope of point of view on health and safety. Information from interviews was recorded, and has been incorporated into the report.

**Calls to cities for mapping**

Calls were made to Public Works department of each city in Alameda, Contra Costa, and San Francisco counties. City officials often referred the intern directly to private companies. The quality of the map is therefore subject to the knowledge of city officials and companies. Information was only collected for municipal solid waste.

This mapping was made a priority by the Teamsters and EBASE because of the need for a comprehensive map of all Bay Area sites which did not previously exist. (See Appendix C for the results).

**IV. RESULTS: THE INDUSTRY**

**Waste and Recycling in the Bay Area**

Waste and recyclable materials move from collection to landfill or diversion through a variety of sites and processes. For the purposes of this project we looked at municipal solid waste. However, some Bay Area sites handle green waste, hazardous waste, and construction and demolition materials as well. The map does not cover sites that deal exclusively with these alternate waste streams.

The waste and recycling industry in the Bay Area is comprised of over 25 sites and facilities. Most cities hold exclusive franchise agreements with one or more private companies to do collection in their cities. The length of agreement varies, but contracts expire in a matter of years and cities are able to put out Requests For Proposals to allow new companies to bid on the contract. Some cities do their own collection. Private companies that dominate the industry in the Bay Area are Waste Management and Allied Waste (Republic Services). Seven or more active landfills serve these three Bay Area Counties.
Jobs in the Industry

Although the recycling and waste industry continues to push to reduce labor and increase mechanization of the processes involved, human sorting remains an integral part of the process. Manual sorters work in Material Recovery Facilities (MRFs), sorting through waste streams for recyclables that machines cannot isolate. Workers are drawn to the industry and remain a part of it for a variety of reasons. For one, work in the recycling and waste industry is steady work. As one union worker put it, “Trash is the future because there will always be trash”. It is also easily accessible work for workers who may not speak English. Furthermore, in unionized sites, workers are able to access decent pay and benefits. As another union worker put it, “We have job security, a union, and good pay”.

However, working in the industry has significant drawbacks: the work is both dangerous and dirty. As a Bay Area union waste and recycling worker characterized his job, “It is a good job with good benefits, but it’s a dirty job”. In this report, we will examine all aspects of that
statement. Below is an overview of the main job categories in the waste and recycling industry, and the hazards associated with each job:

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Work Location</th>
<th>Primary Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver</td>
<td>Collection</td>
<td>Repetitive stress injuries, traffic ‘accidents’, noise</td>
</tr>
<tr>
<td>Heavy Machinery Operator</td>
<td>Processing/Transfer</td>
<td>Exposure, traffic ‘accidents’, machinery ‘accidents’, noise</td>
</tr>
<tr>
<td>Mechanic</td>
<td>Processing/Transfer</td>
<td>Machinery ‘accidents’, exposure, electrical ‘accidents’, confined spaces, noise</td>
</tr>
<tr>
<td>Materials Handler/Sorter</td>
<td>Processing/Transfer</td>
<td>Machinery ‘accidents’, exposure to chemical and biological hazards (including bloodborne pathogens), repetitive stress injuries, noise</td>
</tr>
</tbody>
</table>

In this report, we exclusively interviewed material handlers. In the future, it will be essential to access other worker groups in the industry in order to get a comprehensive understanding of risks and hazards associated with working in the waste and recycling industry.

1. Workers and Managers Surveyed/Interviewed

The two sites at which workers were interviewed are considered large scale state-of-the-art sites. Based on observations from the 5 site visits, both sites seemed characteristic in terms of cleanliness and visible conditions of union sites in the Bay Area.

Twenty material handlers were interviewed between the two sites. Employer Health and Safety Interviews were administered at 5 Bay Area sites, 4 union and 1 non-union, for a total of 4 employer interviews (1 Health and Safety officer represented two sites visited). On one occasion, the employer requested a copy of the questionnaire in advance in order to prepare answers.

Sites ranged in size from 10 to over 200 hundred employees. Five of the 6 non-union sites contacted either declined to participate or did not respond after multiple requests.

2. Demographics of Surveyed Union Population

Material handlers interviewed were almost evenly distributed between males and females, and were primarily Latino. Of the 20 survey/interviews, 11 were conducted in English and 9 in Spanish. Years in the waste and recycling industry varied from 1.5 to 16, with a mean of 6 years in the industry. Many were middle aged, but ranged in age from around 20 to 55.
Gender

Race/Ethnicity

Age

Overall Working Conditions for Surveyed Union Population

All workers at the two union sites where workers were interviewed received benefits, worked around 8 hours a day, and were paid above 10 dollars an hour.
Benefits
“My benefits are really great, all of which encourage me to stay and work here.”

Workers at all union sites visited received benefits, including the two sites at which workers were interviewed. Benefits included health insurance, dental insurance, and pension. Workers at the one non-union site visited did not receive benefits. However, workers at all union and non-union sites visited did receive Worker’s Compensation. As the employer interviewed at the non-union site explained: “It is my job to take care of my workers. If they get injured while on the job, that is my problem. But I am not going to pay for them to go to the doctor’s every time they have a cold.” However, workers at the 2 sites interviewed still had some concerns about the number of sick days and vacation days they received.

3. Injury and Illness on the Job

The majority of respondents (70%) reported experiencing some type of injury or illness as a result of their job, and all respondents reported having experienced one or more of the symptoms listed on the survey (see chart below). Although no question about dust exposure was explicitly asked in our survey, the majority of workers (60%) expressed concerns about dust exposure. Respondents voiced concerns about the content of the dust being inhaled as well as the sheer quantity of dust, although all workers at the two sites wore dust masks.

**Most Common Injuries/Illnesses**

The most common injuries reported were musculoskeletal disorders (reported by 57% of workers) and scrapes and cuts (reported by 43% of workers.) Musculoskeletal disorders (MSDs) reported include repetitive stress injuries of the back, knees, hands, and fingers.

All respondents interviewed reported having experienced 1 or more of the symptoms listed in the chart below. However, many still failed to report that they had ever experienced an injury or illness as a result of their job.

**Symptoms Reported**

<table>
<thead>
<tr>
<th>Number (out of 19)</th>
<th>Eye Irritation</th>
<th>Coughing</th>
<th>Nose Irritation</th>
<th>Skin Rash</th>
<th>Dizziness</th>
<th>Fainting</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>11</td>
<td>11</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Percentage (rounded up to the nearest percentage)</td>
<td>68%</td>
<td>57%</td>
<td>57%</td>
<td>37%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>
* Please note that percentages do not add up to one hundred percent as respondents were free to report more than one symptom.
* Please note that numbers are out of 19 because of missing data for one respondent in this category.

**Dust**

*When I leave work there is dust caked all over my body. I don’t even want to know what our insides look like*

Some respondents viewed dust as an inevitable part of work in the garbage industry, while others recognized that it could be better controlled at their site. From observation, dust seemed to be a concern at all sites visited. Dust is of concern both because of hazards associated with inert dust exposure as well as possible hazardous content (like asbestos) within the dust.

Employers did not seem to share this concern, explaining that dust was below permissible limits at all sites. Permissible limits for “Nuisance Dust” (dust that does not contain hazardous materials such as asbestos, silica, or other minerals) are set very high by Cal/OSHA. At the two sites where workers were surveyed, all material handlers were wearing masks, but this was not true at all sites. Not all sites required wearing dust masks, but masks were made available at every site. Most sites visited were semi-enclosed. Clearly we must examine how permissible limits are set for dust at waste and recycling facilities. Questions about air quality monitoring were not asked at the non-union site.

The concerns that workers voiced bring up the importance of Hazard Communication Standard. The federal standard was established in the Occupational Safety and Health Act of 1970 and the standard states that employees should receive information and training about any hazardous material they may be exposed to in the workplace. Although this standard is in effect, we need to ensure that it is being adequately followed by employers.

**3. Prevention Measures**

**Safety Equipment**

*I don’t wear the mask all the time. It just gets so hot and I feel like I’m not getting enough oxygen. But whether I wore my mask or not, when I blow my nose at the end of the day, black stuff comes out*.

Workers unanimously responded that they were provided all safety equipment on our checklist (see survey, Appendix B). However, not all workers are required to wear personal protective equipment at their sites. At the two union sites where workers were interviewed, personal protective equipment is required and worn all the time (unless it is removed momentarily by workers). However, at some of the other sites visited it was neither required nor being worn. Employees are either temporarily removing masks or not wearing them at all because of comfort (see Appendix A).

Other complaints voiced were regarding durability of gloves and that they wear down too quickly, exposing workers to the materials being sorted. Although gloves are reportedly replaced as needed, some workers still do not think they are being replaced frequently enough.

**Health and Safety Training**

All sites visited provide health and safety training to their employees on a monthly basis in the form of meetings and written questionnaires. Ninety five percent of the workers interviewed at the two sites reported that they had in fact received health and safety training, and
in their native language (English or Spanish). Sixty percent of respondents reported that the health and safety training that they had received was adequate, 30% reported that it was inadequate, and 10% were not sure.

**Reporting Injury**

*“The company constantly reminds us to think about our families and going home safe. No matter what, we are not supposed to risk our safety”*

Respondents at both sites reported that workers are generally reporting injuries. Some revealed that smaller injuries are not always reported because workers think that they should have known better than to have gotten injured. Management emphasizes **personal responsibility for safety**, which may have adverse affects on reporting (see Appendix A). The theme of worker responsibility for safety was echoed by employers and key informants alike. Although employers and key informants recognized the crucial role of the employer in ensuring safety, many emphasized human error and workers not following directions or training as a major factor in prevalence of workplace injury.

The presence of **incentives systems** may affect willingness to report injury as well. Although none of the 5 sites visited currently offer incentives for time without injury, 1 site at which respondents were interviewed had an incentives system in place in 2009. Workers reflected on the past and remaining effects of this system, reporting that the system ‘somewhat’ affect peoples’ willingness to report injury. One worker explained the way that this system was marketed to employees. She explained: **“We used to have incentives for time without injury, which was called ‘motivation to take care of yourself’ with prizes every three months.”** Worker responsibility for safety is being reinforced within this system. Employers at both companies mentioned that discussion of implementing incentives are ongoing.

**V. RESULTS: REGULATIONS AND POLICIES**

There are two state agencies that regulate conditions in the waste and recycling industry. **Cal/OSHA** regulates worker health and safety, and **Cal/Recycle** (the Department of Resources Recycling and Recovery, within the California Natural Resources Agency) regulates all aspects of the operation of solid waste facilities, including proper storage and transportation, EXCEPT for worker health and safety.

**Cal/OSHA**

Cal/OSHA standards for general industry are found in Title 8 of the California Code of Regulations, sections 3200-6184. Important general health and safety regulations include:

- A mandate for the establishment of an Injury and Illness Prevention Plan (IIPP). This plan must include a system for identifying and addressing workplace hazards, as well as training for employees about any hazard they may face on the top.
- Hazard Communication Standard. This requires that employers maintain and provide information on any toxic or hazardous materials workers may be exposed to, including maintaining Material Safety Data Sheets (MSDS), labeling all chemical hazards, and providing training to workers on the health hazards and preventive measures to be used to protect workers against any of these hazardous materials.
- Other specific regulations to protect worker health and safety, such as requirements for machine guarding and prevention of slipping hazards.
Permissible Exposure Limits. These are limits set for specific types of chemicals or other respirable materials (such as asbestos or other types of dust) that cannot be exceeded.

Cal/OSHA Inspections

Although Cal/OSHA does conduct some planned inspections in specific industries with significant hazards, the majority of inspections are triggered by complaints. Cal/OSHA does not conduct routine inspections, and most workplaces will never be visited by a Cal/OSHA inspector. Complaints come from workers, but can also come from other government inspectors. Under Labor Code 6309, complaints from other government agency inspectors are automatically considered “formal” complaints, requiring Cal/OSHA to send an inspector to the site within 14 working days.

Cal/Recycle

Environmental standards for the recycling industry are all contained in California Title 14, and California Title 27. Permitted sites are expected to comply with standards set forth under Title 14 and Title 27. Cal/Recycle standards include environmental and public health and safety standards specific to the industry.

Cal/Recycle Inspections

Local Enforcement Agencies conduct routine inspection of sites to monitor compliance with these environmental standards (Title 14 and Title 27). Local Enforcement Agencies, usually county health departments, are comprised of three to five members who are responsible for inspection of solid waste facilities within county lines. Some cities such as Berkeley or Pittsburg have established their own Local Enforcement Agencies. If a county chooses not to establish a Local Enforcement Agency, the state will take over LEA duties, and establish an LEA under CalRecycle.

The frequency of Local Enforcement Agency inspections varies depending on the way that the site is permitted. Sites are permitted based on what kind of waste they handle and how much of it they handle. Larger sites are inspected 1 to 2 times a month. According to a representative at a Local Enforcement Agency in the Bay Area, smaller sites with less than a full permit are inspected less frequently. This seemed to be true based on employer interviews conducted as well.

Although Title 14, 17408.7 does state that a permitted recycling company’s Injury and Illness Prevention Program [required under Cal/OSHA standards] must be available for review by state and local CalRecycle inspectors during normal business hours, Local Enforcement Agencies (LEAs) are not responsible for reviewing the IIPP, as stated explicitly in the title. This leaves enforcement of worker health and safety standards largely unmonitored.

If LEAs do identify potential worker health and safety concerns at a solid waste processing site, Local Enforcement Agencies are authorized to submit complaints to CalOSHA, as described above. Given that CalOSHA does not have the manpower to conduct routine workplace inspections, and that inspections in the recycling industry are almost entirely complaint-driven, involving LEAs in identifying potential worker concerns could greatly increase Cal/OSHA’s presence in this industry in California.
VI. RECOMMENDATIONS

Laws and regulations and labor-management contracts are two vehicles by which workplace health and safety standards are established and potentially enforced. The observations and conclusions drawn about worker health and safety from sites accessed during this project call for increased inspection, especially of sites which are not regulated by union contracts. Here are some of the standards that we want to make sure are enforced, and/or incorporated into labor-management contracts.

1) **Engineering Controls.** We must continue to develop industry best practices and encourage their widespread implementation. For example, it is important to continue to engineer out machinery hazards. In the example of dust, where ventilation and misting practices to minimize dust are well established, we must work to ensure that these practices are being followed.

2) **Training and information for workers:** Employees are required to receive training about all the hazards they are exposed to, under CalOSHA’s **Injury and Illness Prevention Program (IIPP) Standard.** They should also have access to Material Safety Data Sheets and specific training about the health hazards and preventive measures regarding any toxic substances they may be exposed to, as required by Cal/OSHA’s **Hazard Communication Standard.** Many workers expressed concern about possible exposures in the workplace, and not all were aware that they should have access to information about all hazards present. We need to ensure that employees receive this training and information, including regarding dust exposures.

3) **Policy: Disallow incentives for time without injury.** Based on survey results, incentives for time without injury seem to effectively discourage workers from reporting small injuries. In an industry where small injuries are widespread (see report), and where these injuries can have very real health effects which may emerge later, it is important to prevent this incentives systems from being implemented. Furthermore, disproportionately large monetary incentives are being presented to low-income workers, putting them in a position to decide between monetary gains and their health and safety (see Appendix A).

4) **Policy: Strengthen federal and state exposure limits, specifically for dust.** Employers at all sites visited reported that dust levels were below permissible limits. However, workers were still concerned about dust levels, and displaying symptoms related to excessive dust exposure. Therefore, it is necessary to examine these permissible limits. It is possible that other discrepancies in permissible limits for other chemicals are present in the industry as well.

**Areas for Further Research**

Moving forward, we should explore the potential role of CalRecycle’s Local Enforcement Agencies in identifying and reporting unsafe working conditions. As described earlier, LEAs are the one enforcement agency that most routinely visits recycling plants. Although LEAs are only mandated to enforce environmental regulations, they have the ability to file formal complaints regarding worker health and safety with Cal/OSHA, which triggers a Cal/OSHA inspection. We need to examine ways to encourage LEAs to identify and submit worker health and safety complaints to Cal/OSHA. We must also explore ways to increase the number of LEA inspections at smaller sites.
VII. CHALLENGES AND SUCCESSES

Challenges

1) Worker Definition of “Injury/Illness”. Many workers were hesitant to report that they had experienced an injury or illness in relation to their job, although further discussion often revealed that they had in fact experienced symptoms or injuries. Workers seemed to define injury and illness in a very narrow sense. In the future, it would be important to have a more objective definition of injury/illness in the survey. It might be useful to list symptoms and ask questions about time off of work first, and only later ask about injury and illness on the job. This might guide workers to a more objective answer.

2) Time Constraints. Additional time on the project would have yielded more surveys and site visits.

3) Access to Non-Union Sites. It was very difficult to gain access to non-union sites, mostly because of employer caution. It is also possible that with additional time it would have been possible to create rapport with non-union sites and obtain more tours and interviews.

Successes

1) Quality of Worker Interviews. The worker interviews provided an opportunity for candid conversation that extended beyond questions explicitly asked in the survey. Time spent with respondents was made possible by the union and employer.

2) Diversity of Workers Interviewed. The diversity of respondents interviewed in terms of gender, race, ethnicity, and age is considered a success. The diverse respondents were able to offer a wide range of information and opinions.

XIII. BIBLIOGRAPHY


IX. APPENDIX A: ADDITIONAL INFORMATION

Benefits
- “I have two daughters and do not live with my wife. Sometimes I need to go pick them up and they say that I have to use my sick days. But I already barely have enough sick days.”
- “I wish I had more than 1 vacation day a year to spend with my daughters.”

Injury/Illness
Respondents were asked to list all injuries and illness experienced on the job. Of the 14 respondents (70%) who responded that they had been injured/become sick on the job, 3 reported back injuries, 5 reported scrapes and cuts, 2 reported knee injuries, and 2 reported rashes. Other injuries reported were sprains, traffic accidents at the site, finger injuries, head injuries, and sinus infections. Many respondents reported more than one injury/illness. Often these injuries were reported over the course of the interview, although respondents had initially said they had never been injured or become ill.

Nine respondents reported that their injuries were severe enough that they had to miss work as a result. All respondents who missed work because of their injury were compensated during their time off. However, some complained that the pay was not enough, or that they had to use sick days. Of these 9 respondents, 6 reported that they were forced to return to work before they felt better. They were often put on light duty, which they explained is still strenuous work. This explanation of light duty was echoed by several other workers:
- “I had to come back to light duty but being in the sun made my injury worse. So I ended up going back to normal duty, and put the hard hat on even though wearing the hard hat made it hurt as well. I still take Vicodin every day for the pain.”

Occurrences of Injury/Illness at the Site
The survey also asked whether respondents had witnessed or heard about injuries or illnesses at the site. This question may not have been well understood by all respondents, particularly the Spanish speakers. It seems that the phrasing of the question in the Spanish survey indicated more whether people had actually witnessed an injury. It seems that this had led to some skewed answers in our survey responses.

Thirteen out of the twenty respondents reported that they had seen or heard about injuries to coworkers at the worksite. However, it should be noted that 9 out of 10 at the first site reported having heard or seen injuries to coworkers, while only 4 out of 10 responded yes to the question at site 2. As I alluded to in reporting personal injury there may be a variety of factors influencing these responses beyond simple differences in injury rates at the two site. It also seems that the question may have been framed differently in the Spanish survey, and that the surveyors were able to ask the question more clearly in English.

Worker estimates of frequency of injury varied by site as well. Of the 9 respondents who had witnessed or heard of injuries at site 1, 8 reported that they occurred on a monthly basis, and 1 reported that they occurred on a weekly basis. At site 2 respondents reported that injuries occurred on a yearly basis.
Dust

The quotes below illustrate the sentiments echoed by many of the workers about exposure to dust:

- “The dust is just part of the job.”
- “Yes there is too much dust but I do know what you would do to fix it.”
- “What I don’t like about my job is that there is too much dust everywhere, and it smells strongly. But I know there is probably no way to avoid that.”
- “I don’t wear the mask all the time. It just gets so hot and I feel like I’m not getting enough oxygen. But whether I wore my mask or not, when I blow my nose at the end of the day black stuff comes out.”
- “We need more water to control the dust. I’m always asking for that”
- “They could do better with the dust.”
- “We need more air circulation, more fans or something. The dust gets heavy.”
- “The public is dumping things that they know shouldn’t be in there and since there aren’t enough people to monitor, things like asbestos are crunched down and go down the line to me. I may not see it but it’s in the dust in the air. I may take my mask off for a second to wipe my glasses and inhale it.”
- “When I leave work there is dust caked all over my body. I don’t even want to know what our insides look like.”

What People Like about their job

It is also important for the purposes of our report to understand why people come and stay in the industry. Below are listed some of the reasons that people like their jobs:

- steady work
- exercise
- greater environmental good
- good benefits
- good pay
- opportunity to meet people different than themselves
- opportunity to move up
- respectful employer

- “The job is simple, you get a workout while doing it, and we’re helping the environment.”
- “We have job security, a union, and good pay.”
- “We’re helping the environment.”
- “I like the people that I work with.”
- “I have the opportunity to meet people who are different than me here.”
- “Here they respect the labor laws.”
- “Trash is the future because there will always be tras.”
- “My benefits are really great, all of which encourage me to stay and work here.”

Although not mentioned explicitly, the availability of these jobs to non-English speakers is an important factor in who the job attracts. At site 2, few of the sorters spoke English, and all management was Spanish-speaking. The Waste and Recycling industry offers a large number of jobs that do not require any knowledge of the English language. It might also be noted that managers did not seem to have a sense of citizenship status of workers and did not seem to care.
Would You Consider Your Job “Safe”?

All respondents were asked whether they considered their job safe, as well as why or why not. Seventy five percent of respondents reported that yes they thought their job was safe. Others were worried about dust exposure and contact with hazardous materials. The below quotes illustrate awareness of the dangers of the job, and the complexity of the way workers define ‘safe’:

- “It’s dangerous work, but you’re safe if you follow the protocol. But not everyone does and not everyone uses the equipment. But still, accidents happen.”
- “No, the job isn’t safe all the time. We are dealing with heavy stuff that can fall.”
- “Stuff has just missed me a few times. You gotta pay attention”
- “I have had to teach myself a lot of the things necessary to be safe on the job.”
- “The work is very dangerous. There are many risks like metals passing by on the belt that can hit you or rocks that can fall.”
- “I think that the work is safe because there are many precautions in place as well as safety equipment.”

Safety Equipment

When asked how often they wore their safety equipment, most immediately responded that they wore it all the time. However, upon further discussion it became clear that many took off their masks at various points over the course of the day due to heat and difficulty breathing. Some people reported that the masks were not effective in keeping out dust and particles, and had to be changed very often. A major complaint at one site was about gloves wearing out. From speaking to management, it is clear that gloves are expensive, and that workers go through them quickly. Gloves are typically replaced as needed at sites (including the two surveyed). As the workers explained:

- “The gloves aren’t enough. They wear down too quickly!”
- “We need sturdier masks and gloves and goggles.”
- “It gets so hot and we get tired. Sometimes we need to take our masks and hats off to breathe for a minute, but the supervisor tells us to put them back on. I wish we could have some more breaks.”
- “Our gloves get worn out and wet, but they won’t replace them more than two times a week. We need new gloves more like daily.”
- “I don’t wear the mask all the time. It just gets so hot and I feel like I’m not getting enough oxygen. But whether I wore my mask or not, when I blow my nose at the end of the day black stuff comes out”.
- “We need uniforms. We get an apron but wear our own pants. We then wear them home and get all the dirt and whatever else in our homes and expose our families.”

Reporting Injury

The below quotes reveal the way in which personal responsibility is reinforced by management and truly absorbed by workers:

- “The job is safe but you gotta be aware. It’s about personal responsibility.”
- “The job is safe but there are a lot of things that you have to watch out for.”
- “If you follow the rules, you are in good shape.”
- “The job is safe if you work safely. Supervisors reinforce how important safety is to the workers, and remind them to think of their families and all the people who depend on them as a motivation to do their job safely.”
- “The company constantly reminds us to think about our families and going home safe. No matter what, we are not supposed to risk our safety.”
- “People don’t always report injuries, or at least do not always report the minor ones. Last year we had a bonus system where you received a fifty dollar gift card for being safe for a certain amount of time. They stopped the system though because they didn’t have enough money.”

Questions about the motives of company doctors

Several respondents at both sites brought up concerns about the motives of company doctors. Many suggested that company doctors seemed to push them back to work before they felt ready. A few mentioned that they had to fight to see their regular doctor and only then were able to receive the diagnosis that they felt was appropriate. The fact that companies employ doctors is important to recognize.

XII. APPENDIX B: WORKER SURVEY

XIII. APPENDIX C: PROCESS MAP OF WASTE AND RECYCLING