

The Problem with Dirty Work

Laundry Issues at ASU

ASU 121

The topic that needs to be talked about today is the state of the laundry rooms in dorms. We will first go over research that we have found about this topic that will highlight facts about this issue. Then we will go into what we can do to increase local awareness of this issue. Lastly, we will talk about what actions our group recommends to improve this issue. This will highlight that laundry rooms in dorms need major improvement and how we can improve them specifically.

The first article we have found that really shows what laundry rooms are capable of doing is called *School Laundry rooms boost pride and attendance*. This article is mainly about laundry rooms being put in middle and high schools but I think it is still useful in terms of use in college dorms as well. The article states “Many at-risk students from low- income homes often do not have regular access to clean clothes, drawing unwanted attention and ridicule from classmates. As a result, they skip school. In 2016, David A. Weir Preparatory Academy—a Title I K8 school near San Francisco—installed an industrial- sized washer and dryer. Attendance increased for 90 percent of the students with access to the machines, while 89 percent of those students participated more in class.” (Bendici). This quote shows that having access to quality laundry rooms can improve the students pride and attendance because no one wants to be known as the kid that stinks or the kid with dirty clothes; having access to laundry rooms fixes that. But if the laundry rooms that are provided do not clean students' clothes to the best of their ability, or aren't working properly, this could result in adverse affects to students confidence/mental health. If we improve the state of the laundry rooms then it could have a positive effect on a student's personal self perception.

The next article shows what safety guidelines you should follow when doing laundry. It is titled *Safety first for on-premise laundries*. This article is mainly about safety precautions to take

in more of a workplace setting but there are still things we can take away from this and apply to our own laundry rooms. The article states “It is generally recommended that the main training points be presented twice and then reinforced by signage. Signs can be posted in the laundry room highlighting key points of the training.” (Shady). The main idea we can take away from this quote is to put up signage in the laundry rooms. I don't think we need to go as far as having training but I think signage would be a very good step to help keep the laundry rooms sanitary and the machines in constant working order. Another idea the article states is “By creating a preventative maintenance schedule and sticking with it, laundry managers can increase their department’s efficiency, reduce the risk of injury and illness, minimize unscheduled interruptions, and prevent larger and more costly repairs.” (Shady). This quote shows a very good idea of what should be implemented in the laundry rooms in the dorms. One of the main issues in the dorm laundry rooms is that a lot of the time most of the machines are not working. So having a preventative maintenance schedule would be very useful for the well-being of the laundry machines. This would guarantee that the laundry machines would be in constant working order for the residents. One more thing stated in the article is that “it is important that the dryers’ entire exhaust ducts be inspected at least once a month. A restricted exhaust duct from lint reduces airflow and increases the chances of creating an unsafe condition.... Washers should be examined for leaks daily.” (Shady). These are things that need to be done in the laundry rooms because a lot of the times the lint screens aren't even emptied out which can cause a lot of problems and there are always puddles on the floors in the laundry rooms. Checking the washers and dryers everyday for leaks can prevent these issues from happening.

The next article lists five reasons why university laundry rooms should be improved. The name of the article is called *5 Reasons to Improve Your University Laundry Services*. The five

reasons they give include lower utility and operational costs, increased revenue opportunities, increased engagement with students, and higher possible recruitment ability. The main idea that is stated in the article that can be applicable to the improvement of our laundry rooms is “Updated equipment can save your university thousands of dollars per year, allowing you to put more funds where they’re needed most — in the classroom.” (speed queen) Getting new machines for the laundry room would be a huge improvement because it would save the university money on constant maintenance and repairs involving the laundry rooms. The money saved could potentially be allocated to making improvements elsewhere in the university where it would be of better use.

The next article lists tips on how to design your laundry room to be the most efficient it can be. The title of the article is *Designing your laundry room for maximum efficiency*. It states in the article that “Based on the number, the laundry room floor plan should include 1.2 sq. ft. of floor space per pound of solid laundry processed per day. Fifty percent of the total square footage should be dedicated to equipment, 20% to soiled linen, 20% to space for folding and carts, and 10% to clean-linen storage.” (Shady). The laundry rooms in the dorms are just big enough for the machines and a walkway in front of them. But according to this information, in order for the laundry room to be as efficient as they can be, the laundry rooms should be much bigger than they currently are.

This next article talks about how the laundry rooms at universities are wasteful of energy and water consumption. The article title is *Go Green with Laundry Machines*. It states in the article that “Currently, if someone using a machine washer washes using hot water and rinses using warm water, they are using an average of 4.5 kWh per load (3). This is at an average cost of \$0.15 per kWh that would come to \$0.68 spent on electricity per load. However, if the same

load was done with only cold water, it would use an average of 0.3 kWh per load. At an average cost of \$0.15 per kWh that would be only \$0.04 per load.” (Fu-Sum). If the dorm laundry rooms only allowed clothes to be washed with cold water, there could be more money for maintenance on the laundry rooms, more money for cleaning staff, and maybe even potentially more money for new laundry equipment.

The next article talks about the design of public laundry rooms and things people are doing to fix the problems that currently exist. This article is called *Design of Public Self-service Laundry System in College Dormitory*. The article states that “Youxi and Xiaoyou Laundry are some of the platforms targeting the campus market, and both Youxi and Xiaoyou Laundry provide private laundry rental service in the form of free hardware but with service charge. Both services can effectively solve the problem of “difficulty to do laundry“ in college student dormitories, which can save the time and energy spent on laundry by the students. Through related service management, it has also effectively prevented the sanitation problem, and accumulated certain experiences of success. The laundry service platform, such as the brands of Youxi and Xiaoyou Laundry, can provide laundry machine rental service to students.” (Hesen) This is one thing that they have started doing in china to fix the laundry issues. They have started making private laundry services available to students. This would solve a lot of the issues including machines not being available, laundry rooms being dirty, and knowing when your laundry is done. A private laundry service may be more expensive to run, but it can help mitigate issues that the current system has at the moment.

The next article details a study testing the energy and water savings in the washing process when using automatic laundry washing processes. The title of this article is *Energy and water savings potential in automatic laundry washing processes*. The main results and takeaways

of their study was that “if the real consumer behavior is considered (scenario E/W-5a–d), water savings of up to 30 % and energy savings of almost 50 % are also possible, when the energy and water efficiency of the devices are improved significantly and a low- temperature wash program is selected.” (Pakula). This shows that when implementing machines that utilize automatic laundry washing processes you can save up to 30% of water supply and 50% of expended energy. These savings would also help save money which could subsequently go towards improving the laundry rooms. If we got machines that can automatically choose the settings for you, we can potentially cut costs and save big on energy.

The next article is a study that determines if using sorption and heat pumping is efficient for drying. The article is called *Efficient drying in washer dryers by combining sorption and heat pumping*. The results of this study were that “The combination of sorption and heat pump drying can theoretically reduce the overall energy consumption by 6.9% in a standard washer-dryer with 3kg load. This theoretical figure is inclusive of the energy used for the sorption bed regeneration. Without regeneration the system takes 19min less to dry the clothes, resulting in an overall energy reduction of 18.3%.” (Cranston). This shows that if we switch to using a combination of sorption and heat pump drying, the drying time would take a lot less time which would make the laundry process much more efficient, resulting in shorter wait times for others to use the machines. This possibility could be effectively implemented into our current systems.

This next resource is a study determining what factors could potentially conserve energy involving laundry use. The article is titled *Residential Energy Use and Potential Conservation Through Reduced Laundering Temperatures in the United States and Canada*. An interesting point this study found was that “the selection of detergent can also impact thermal-energy consumption. Because mechanical energy is a relatively minor component of overall energy used

in laundering, thermal energy conservation offers the highest potential for cost savings.” (Sabalianas). This shows that the type of laundry detergent used can actually affect the energy consumption in washing machines. To reduce energy consumption in the dorms which saves money, we should make a specific type of detergent available in the laundry rooms to ensure that the residents will use the chosen detergent. This again will save energy costs and improve efficiency.

This final article is mainly about laundry in nineteenth-century Paris but there are some concepts that we can take away from it and apply to the laundry rooms on campus. The title of the article is *Dirty Laundry: Public Hygiene and Public Space in Nineteenth-Century Paris*. It states in the text that “The architects of the law claimed that it would protect laundresses from possible contamination through laundry from people who had contagious diseases. In effect, it would sanitize their work environment and provide them with safer working conditions by disinfecting the laundry.” (Gruring). This quote shows how crucial it is that the environment in the laundry room has to be clean. The study demonstrates that uncleanliness can lead to the spread of contagious disease through transmission of laundry. We assume that doing laundry keeps our clothing and sheets clean, but if the cleanliness of the machines are neglected, we could potentially see adverse effects including the spread of contagious viruses and bacteria. Given the current climate of public health, it is clear to me that sanitization and cleanliness should be a huge factor when considering making improvements to the campus laundry rooms. Health and safety of students should be an important priority, and if properly addressed will lead to cleaner, safer campus living conditions.

The evidence presented above all shows that there is room for improvement in our current on campus laundry facilities. There are various things that we can do that will vastly

improve all aspects of the laundry services offered. When analyzing the concerns that most students have regarding the laundry rooms, it becomes apparent that an improvement in the machines themselves would bring the greatest change possible. This includes upgrading the machines to more efficient models. In return, ASU could cut massive energy costs and have machines that will require much less upkeep and maintenance. Newer, more efficient machines will also benefit students by allowing them to get their laundry done quickly, and will help eliminate students having to wait to use a machine. These improvements can then allow ASU to allocate more resources to making the laundry rooms a more clean and safe environment. The school may also be able to consider implementing new protocols in the laundry rooms, like offering more efficient laundry detergent for example. Another way ASU could then improve the laundry system is by taking any saved money and using it to either expand the laundry rooms, or buy additional washers and dryers to help accommodate a growing student population and help reduce wait times. All in all, changes made to improve the laundry facilities will mutually benefit both parties in various ways. Students will benefit from a cleaner, more efficient, and more convenient laundry facility, and ASU can benefit by cutting energy and maintenance costs, allowing them to put that saved money into more beneficial places.

The question is, what can we do to raise awareness about this topic? First off, we must survey and analyze how students feel about the current laundry system. We can ask for suggestions and figure out which areas could use the most improvement. Once we can demonstrate that students feel that our laundry rooms are a problem (which we are in the process of right now), the most effective way to raise awareness for change is to make light of the issue to ASU staff and faculty. The people who have the funding and control over the laundry services will be the most crucial to get to. If they can understand our problem, and we can present viable

solutions that will benefit everybody, then change will inevitably be made. We are in the process of collecting survey data, and will present it to a strategic group of people that have the power to bring change to the issue. It is our job to relay the information from students and ASU staff in order to make a difference. In our opinion, that is the most effective and important way to raise awareness for our issue.

Work Cited/References

- Bendici, R. (2018). School laundry rooms boost pride and attendance. *District Administration*, 54(12), 19.
- Shady, K. (2004). Safety first for on-premise laundries. *Nursing Homes: Long Term Care Management*, 53(8), 70–72.
- Queen, S. (2020, September 9). 5 Reasons to Improve Your University Laundry Services. NA Speed Queen Commercial.

<https://speedqueencommercial.com/en-us/news/5-reasons-to-improve-your-university-laundry-services/>.

- Shady, K. (2005). Designing your laundry room for maximum efficiency. *Nursing Homes: Long Term Care Management*, 54(8), 50–54.
- Fu-Sum, E., Freire, V. L., & Fagan, J. M. (2015, May 5). Go Green with Laundry Machines - Rutgers University. GO Green with Laundry Machines. <https://rucore.libraries.rutgers.edu/rutgers-lib/47905/PDF/1>.
- Hesen, L., & Ying, L. (2019). Design of Public Self-service Laundry System in College ... Design of Public Self-service Laundry System in College Dormitory. https://webofproceedings.org/proceedings_series/ESR/IWMECS%202019/IWMECS19045.pdf.
- Pakula, C., Stamminger, R. Energy and water savings potential in automatic laundry washing processes. *Energy Efficiency* **8**, 205–222 (2015). <https://doi-org.ezproxy1.lib.asu.edu/10.1007/s12053-014-9288-0>
- Jonathan Cranston, Ahmed Askalany, Giulio Santori, Efficient drying in washer dryers by combining sorption and heat pumping, *Energy*, Volume 183, 2019, Pages 683-692, ISSN 0360-5442, <https://doi.org/10.1016/j.energy.2019.06.141>.
- Sabaliunas, D., Pittinger, C., Kessel, C. and Masscheleyn, P. (2006), Residential energy use and potential conservation through reduced laundering temperatures in the United States and Canada. *Integr Environ Assess Manag*, 2: 142-153. <https://doi-org.ezproxy1.lib.asu.edu/10.1002/ieam.5630020206>
- Gruring, J. (2011). *Dirty Laundry: Public Hygiene and Public Space in Nineteenth-Century Paris* (Order No. 3466766). Available from Dissertations & Theses @ Arizona State University; ProQuest Dissertations & Theses Global. (885429613). <http://login.ezproxy1.lib.asu.edu/login?url=https://www-proquest-com.ezproxy1.lib.asu.edu/dissertations-theses/dirty-laundry-public-hygiene-space-nineteenth/docview/885429613/se-2?accountid=4485>