How Brown University's custodial program triumphs through incremental change

BROWN

BROWN UNIVERSITY BY THE NUMBERS

187	21	201	$16M
Union Staff	Leadership/ Support Positions	Facilities Serviced (7.3M GSF)	Annual Budget

A Time for Change

The year was 2016, and Brown University's custodial program was in big need of a change. "It's not that the campus was dirty" says Donna Butler, Brown's Sr. Director of Custodial Services. "Although we had some quality challenges, the biggest problem was that our staffing levels, lack of technology, and organizational structure were misaligned with the high expectations of the campus community. Our stakeholders were not aware that, due to the "Great Recession" some years earlier, our program's size and structure were not sufficient to deliver the APPA 2 (or higher) cleanliness levels that the campus expected." The custodial budget had been reduced over multiple years, primarily through the elimination of vacant positions.

In addition to this misalignment, Brown University's custodial program lacked digital tools and technology for key elements such as quality assurance, dashboards, and equipment inventory. Butler continues: "We were relying on pen, paper, and other manual systems to manage our operations. We also had no idea what our latest net cleanable square footage totals were, so it was difficult to workload an updated staffing plan. It was time to take our program to the next level."

According to Paul Armas, Brown's Assistant Vice President of Facility Operations: "We were constantly in fire fight mode, pulling resources out of buildings to address customer complaints in Priority 1 and 2 buildings. Staff were confused, often underappreciated, and over-worked, leading to low morale." The outdated written task sheets were no longer relevant, adding to the confusion of daily/nightly orders with very poor pass down from shift to shift.

Armas continues: "We had each supervisor running their own program; five mini-departments with little to no standardization among the team. There was clearly a communication gap from FM senior admin down to frontline staff, producing friction with the collective bargaining unit members on the FM team and our customer base."

The Challenges

- Not meeting APPA 2 levels
- Misaligned expectations
- Low morale
- Outdated building task sheets
- Outdated equipment inventory
- Confusion between shifts
- No formal QA/QC program
- Manual processes / reports
- Communication gaps

Assessing the Gaps, Setting the Vision

The solution process began with a custodial operations assessment. Brown partnered with Core America (www.coreamerica.com), an independent custodial consulting and software company that has helped over 300 universities and colleges to assess and improve their custodial programs.

Through a series of campus visits, customer interviews, square footage take-offs, and quality inspections, Core consultants gathered the information needed to develop findings and recommendations. These findings were used to determine the current APPA level of cleanliness (Smart Inspect QSP™ of 81.2%, or APPA 3.25), design an updated cleaning task-and-frequency set, workload the optimal custodial staffing levels (by area, building, and budget scenario), and provide best-practice recommendations regarding sustainability, quality, equipment, training, shift times, and other program elements. Core also used its market data to benchmark Brown's staffing, cost, quality, and span-of-control against its Ivy and Ivy-Plus peers.

Anthony Maione, president of Core America, summarizes the assessment findings like this: "The Brown University custodial department consisted of wonderful, hardworking team members who were struggling to meet the customers' APPA 2 expectation level. The primary two factors for this misalignment were 1) the program was staffed for only APPA 3.5 outcomes, and 2) the program lacked the tools, software, and processes to effectively manage and communicate the department's activities."
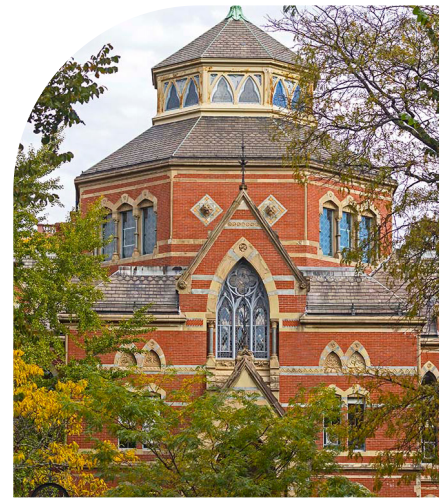
Despite these misalignments, the dedicated frontline staff and management team were doing their best to please their diverse customer base, while preparing the department for long-term change. Brown worked closely with Core America to develop a strategic vision, which included a year-by-year roadmap of incremental change. The assessment results and resulting vision and action plan were communicated to the campus community by Paul Armas. According to Armas, "The end users and union staff deserved to know where we stood, and how we planned on bridging the gaps identified by the assessment to allow us to provide consistency in our daily services. By clearly communicating the long-term plan, our shift in strategy and the desired outcome, we moved from a complaint-driven program to a program of encouragement and understanding."

The Strategy

- ☑ Custodial ops assessment
- ☑ Net cleanable sq. ft. take-offs
- ☑ Cleaning spec design
- ☑ Baseline quality audit
- ☑ Staffing workload models
- ☑ Stakeholder interviews
- ☑ Long-term vision
- ☑ Strategic roadmap
- ☑ Customer communication

The Road to Success

STABILIZATION AND ENHANCEMENT

Led by Paul Armas and Donna Butler, the custodial program immediately began its process of incremental change with a "Stabilization Plan". Core America's workloading data was used to re-establish an attainable APPA level of cleanliness, based on the budget at that time.

Facilities and union leadership negotiated a transformation of shift times. This allowed Brown to re-organize to a predominantly preferred shift (third shift) for improved cleaning efficiencies with the establishment of dorm-centric key stations and a floater program (for highly visible, "VIP" spaces) on the day shift. By shifting existing resources, Brown worked "smarter, not harder" by implementing an APPA 2 program for all high-traffic areas, and new buildings, which totaled to about 1.2 million square feet (or 25% of the campus).

The span-of-control was rebalanced to lower the staff-to-supervisor ratio and create additional key stations. Brown created a manager position on every shift, ensuring accessibility, leadership, and communication for every team member.

After the Stabilization phase, Brown continued to work with Core to create a Master Plan focused on two parts: 1) an Enhancement Phase focused on practical improvements to the existing program, followed by 2) a Best-in-Class Phase. Combined, these two phases implemented custodial recommendations over 5+ years to elevate the program to the desired future state.

> Core assisted Brown in re-establishing an attainable, budget-friendly APPA level of cleanliness and creating all new written building task sheets tied to APPA standards.

During the initial Enhancement Phase, Core assisted Brown in creating all new written building task sheets, or "cleaning routes", tied to APPA standards. Brown invested in and deployed mobile devices to its entire custodian staff to give frontline team members access to electronic task sheets and work orders sent directly to them, as well as host of other features to aid them in communicating and sharing information. With the updated, digitized cleaning routes, every custodian on campus now had a documented building task sheet and color-coded cleaning map. Customers understood the staffing plan, new hire training improved, and custodians covering entitlement time had an easier time understanding their fellow co-worker's assignment.

Core also used its Smart Load™ custodial workloading software to design staffing models for any

new construction growth and renovated building opportunities. This objective data helped Brown secure funding for a higher APPA level of cleaning. New management positions were added based on the span-of-control assessment findings, and staff-to-management ratios were adjusted as Brown continued to make incremental improvements to the overall operations in various building portfolios.

Another feature of the Enhancement Phase was Brown's implementation of Core's QA/QC software, Smart Inspect™. Through this app and reporting platform, Brown moved away from the pen-and-paper process while establishing quality KPI's, quality dashboards, and a best-in-class customer communication program. Brown established a new leadership position, an in-house Trainer/QA/QC specialist fully dedicated to quality improvement and training. Core America continued to perform third-party quality inspections to measure the incremental change and benchmark Brown against Ivy Plus peers for whom Core also performs these inspections. Core also oversees the monthly KPI meetings with AVP, Sr. Director, Director, and Managers, ensuring leadership is accountable for the most important metrics.

To address some gaps in its training program, Brown launched a new refresher training program for all existing staff

and supervisors on cleaning and disinfecting SOPs. Frontline staff and leadership were trained to reset one consistent program, focused on standardization, and closing the quality gap between high and low scoring buildings. Also added was a new-hire multi-day orientation program as part of the onboarding process for all newly hired custodians.

Finally, the Enhancement Phase had to be adjusted during the COVID-19 pandemic. Resources were shifted toward the disinfection of common touchpoints, electrostatic spraying technology, upgraded PPE, and a focus on the "invisible" side of cleaning. During the pandemic, Core America conducted 3rd party ATP testing of a sampling of high touch points in every student room prior to re-occupancy. Failing rooms were re-cleaned and then re-swabbed with a passing score before Brown would turn them over to students.

The Program Today

BEST-IN-CLASS ALIGNMENT, ACCOUNTABILITY, AND INNOVATION

Today, the custodial operation at Brown University is in the "Best-in-Class" Phase, building on the baby steps since the original assessment in 2016.

The focus of this phase is continuous improvement, never being satisfied with current

The Solution

- ✓ Initial Stabilization Plan
- ✓ Re-org to align with realistic expectations and budget
- ✓ APPA 2 standards in strategic areas / buildings (1.2M SF)
- ✓ VIP front-of-house daytime cleaning
- ✓ Smart Inspect™ QA/QC platform
- ✓ Transformation to 3rd shift for non-residential buildings
- ✓ Shift / span-of-control updates
- ✓ New positions added / justified
- ✓ New routes for all custodians
- ✓ Staffing model adjustments
- ✓ Supervisor KPI's
- ✓ Dashboards and peer benchmarking
- ✓ Training enhancements
- ✓ 3rd party quality audits
- ✓ Equipment asset tagging
- ✓ COVID plan / ATP tests

state and continuing to "break through" the ceiling whenever the program reaches a plateau. For example, in the past couple of years, the Brown team has been piloting autonomous cleaning machines, internet of things (restroom sensors), updating the asset tagging and GPS tracking of its equipment, maintaining an emergency set of key equipment items, and continuing to support a mobile-enabled frontline staff, each of whom has a smart phone for managing work orders and other tasks. Restroom QR codes allow patrons to report issues in real-time.

Additionally, Core America's continued third-party support, software and expertise helps the Brown program to continue is quest toward a best-in-class program. Core works closely with Brown's leadership team to adjust the building task sheets, workload new buildings, conduct third-party audits, benchmark with peers, update the equipment asset tags, and meet with the supervisors monthly to review their quality and customer communication KPI's.

According to Core America's Vice President Carl Keil, who leads Core's assessment, master plan, and third-party audit activities: "The Brown University custodial program is a flagship among higher ed institutions. Their current level of custodial innovation, communication, accountability, and software is world-class."

Program Element	Original State (2016)	Best-In-Class Phase (Today)
Staffing Levels	APPA 3.5, no floater program	APPA 2, robust floater program
Quality	QSP™ 81.2% / APPA 3.25, high variability	QSP™ 90.8% / APPA 2, low variability
Span-of-Control	Unbalanced ratios	Improved, consistent ratios; manager on each shift
Shift Times	4 hybrid shifts, low efficiency	1 strong 3rd shift; residential and VIP areas on 1st shift
Inspection Process	Pen and paper	Smart Inspect™ QA/QC platform
Reports	Manual, non-standardized	Dashboards, digitized, and auto-sent
Third-Party Audits	None	Ongoing audits/peer benchmarks by Core America
Customer Communication	Disjointed and sporadic	Customer-specific task sheets, quality results
Equipment	Outdated list	Updated list, with each item tagged and geo-fenced
Robotics	None	Piloting autonomous floor machines
Accountability	No KPI's	Supervisors and Managers have monthly KPI reviews
Training	Average program, no manager	Enhanced program, led by training manager
Pandemic	Limited awareness	Disinfection program, new SOP's, ATP swabbing

The chart summarizes the before-and-after transformation, showing how each program element transformed to its current, best-in-class state.

By embracing incremental change, clearly articulating that plan to the campus community, and executing the action plan one step at a time, Brown's custodial program has truly achieved a best-in-class program.

"We are so proud of how far we have come" says Brown's Paul Armas. "But the transformation doesn't stop here. To truly remain best-in-class, we must continue investing in our people, technology, and processes." ●