

Comprehensive Reuse



A Triple Bottom Line Solution for Surplus Furnishings



Presenters



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Comprehensive Reuse

A Triple Bottom Line Solution for Surplus Furnishings

1. How Columbia University established and manages internal and community communications and logistics to achieve a lower disposal of surplus.
2. Barriers that stand in the way of successful aggressive reuse, and how to overcome them.
3. Different approaches that can be taken to maximize reuse of surplus assets, practical considerations in their selection, and the factors that affect the likelihood of success of different approaches.

What is Comprehensive Reuse?

Reuse is a sustainable, humanitarian, and financially responsible solution for surplus furniture, equipment and other items that still serve a purpose.





Columbia at a Glance



Columbia University Campus Overview

Campus Footprint: 13 million square feet

Multiple Campuses

Morningside

Medical Center

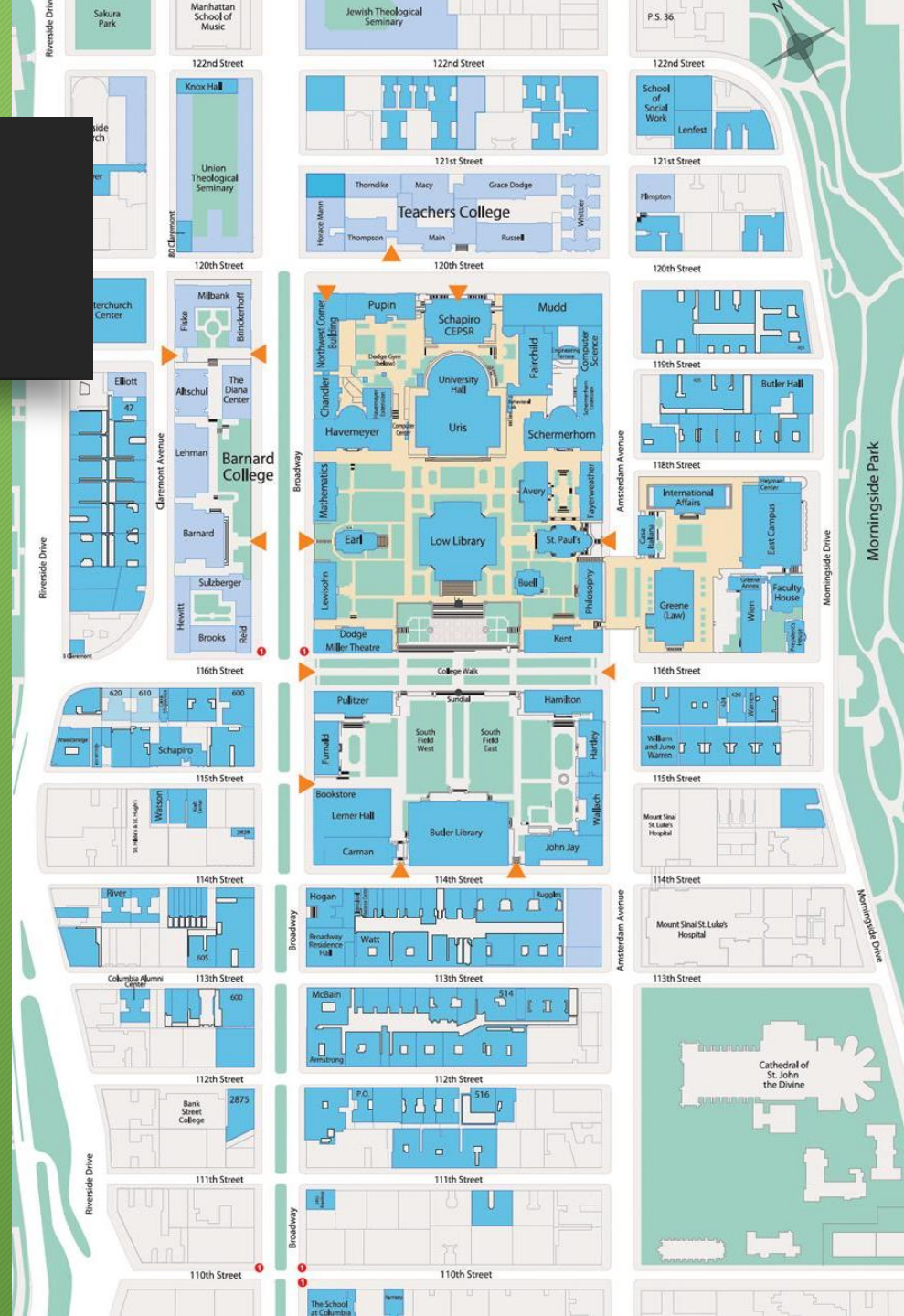
Lamont-Doherty Earth Observatory

Manhattanville

Student Population:

31,317 Enrolled, 28% Undergraduate

Employees: 16,613



Undergraduate Housing & University Apartments

Undergraduate Housing

38 Properties (18 Residence Halls, 20 Brownstones)

Furnished Rooms – 4,498

Total Beds - 5,839

Budget for furniture refresh per annum: \$1.3M

University Apartment Housing

151 Properties

Furnished Rooms/Apartments – 1,885/5,792

Total Beds – 7,905

Budget for furniture refresh per annum: \$1.2M





A Sustainable Columbia

Campus Sustainability Plan: Overview

2006

Columbia creates Environmental Stewardship office with a focus on building awareness on campus and at the new Manhattanville campus

2016

Columbia establishes a set of **Sustainability Principles** to set a long term vision for the University's commitment

2017

Columbia launches first campus sustainability plan in three areas with an overarching focus on greenhouse gas emissions.

- Close collaboration between Earth Institute and Facilities and Operations.
- Three working groups formed around three key areas: Energy, Waste, Transportation
- Students, faculty and administrators represented in all groups and at every part of the process



Campus Sustainability Plan: 2020 Goals



Columbia received the highest score out of all participating institutions in the transportation section of the 2015 AASHE STARS Report, earning almost **90 percent**, and was recognized as a Top Performer for Transportation in AASHE's 2016 Sustainable Campus Index.



Over the past 10 years (2006 baseline), Columbia University has reduced gross energy consumption by **4 percent** while growing square footage by **7 percent**.



To date, the University has donated over **one million pounds** of furniture to Columbia Community Service partners, as well as to disaster relief overseas.



Since 2006, Columbia has reduced absolute carbon emissions by **29 percent**.

Greenhouse Gas Emission program goal:

Publicly report absolute emissions in accordance with international best practice protocol

Energy reduction goal:

Reduce GHG by 35% by 2020 through energy conservation

Transportation goal:

Baseline and reduce GHG emissions through greener campus fleets, commute alternatives, increased bike cases, low carbon business travel

Waste goal:

Baseline and reduce waste by diverting more materials from landfill via recycling, re-use, organics and waste minimization.

Making a Difference

sustainable.columbia.edu

- Clean & Go Green
- EcoReps
 - Give & Go Green
 - Green Sale (3yr Avg. Revenue: \$33k)
- Energy Challenge
- Plastic Bag Recycling
- In-House Composting
- NYC Food Scrap Collection
- Zagster & Citi Bike
- Textile Re-use Programs
- Surplus Reuse Program



Reduce, reuse, and recycle

Learn what you can [recycle](#) at Columbia. Donate and swap unwanted items during [Clean + Go Green](#) and [Give + Go Green](#) events. Use the [surplus re-use program](#) to donate or re-use office furniture and equipment. Taste, don't waste — practice mindfulness when selecting food in the dining halls and other eating establishments around campus. [Wasting food](#) wastes the energy and water used in producing and transporting it.



Walk, bike, or use alternative transportation

Try out [Zagster](#) or [Citi Bike](#), both available on or near Columbia's campuses. Bike to work and store your ride in Columbia's secure [bicycle parking and racks](#). Ride the [Inter-campus Shuttle](#), which is tracked in real time, or the [Evening Shuttle](#), to get around campus after 6 p.m. (Other commuter shuttles and [sustainable transportation](#) options are available).



Volunteer to lead sustainable change

Join a sustainability-focused [student club](#). Stay tuned for updates on the newly formed [Sustainable Leaders Network](#). Take advantage of existing programs in your [living space](#) or [lab](#).



Report drips and window leaks

Submit a [maintenance request](#) to make your space more comfortable and efficient.



Reduce energy and electricity use

Turn off lights, power down, and unplug electronics when not in use, especially during nights and breaks.



Use a reusable mug or bottle

Get [discounts on coffee](#) and use filtered water stations across campus to refill your bottle.



Learn it

Browse the Earth Institute's [Course Guide](#) and [events calendar](#) to learn about environmental studies from some of the world's best.



Wash clothes in cold

Washing in cold or "bright colors" uses 90% less energy than washing in hot and it preserves the life of your clothes.



Take shorter showers

By reducing your shower time you can help save water and the energy used to heat the water.



Adopt healthy, sustainable lifestyle habits

Take the Green Monday pledge to learn how to make slight shifts in your lifestyle, starting with what you eat, which can help to reduce your environmental impact.



Brand it

Are you putting together a sustainability event or initiative on campus? Brand your posters, powerpoints and flyers with the new Sustainable Columbia logo to join the movement. [Contact Environmental Stewardship](#) to learn about the new branding guidelines.



Download the Sustainability Plan

Learn more about Columbia's [campus-wide plan](#) to become a more sustainable community.

Internal Surplus Reuse



**SUSTAINABLE
COLUMBIA**

**REUSE
PROGRAM**

[Search Listings](#)

[Help](#)



SEARCH FOR AN ITEM



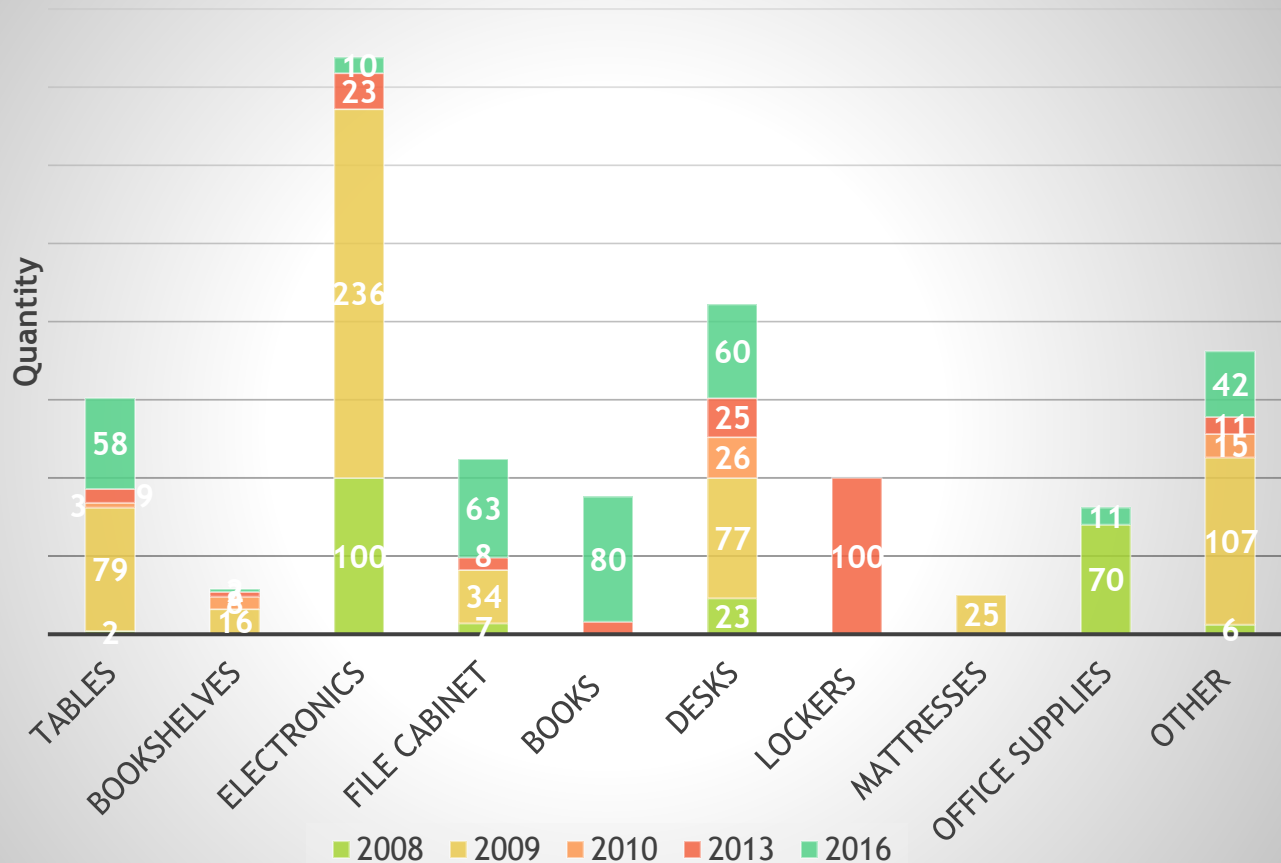
DONATE AN ITEM

How does it work?

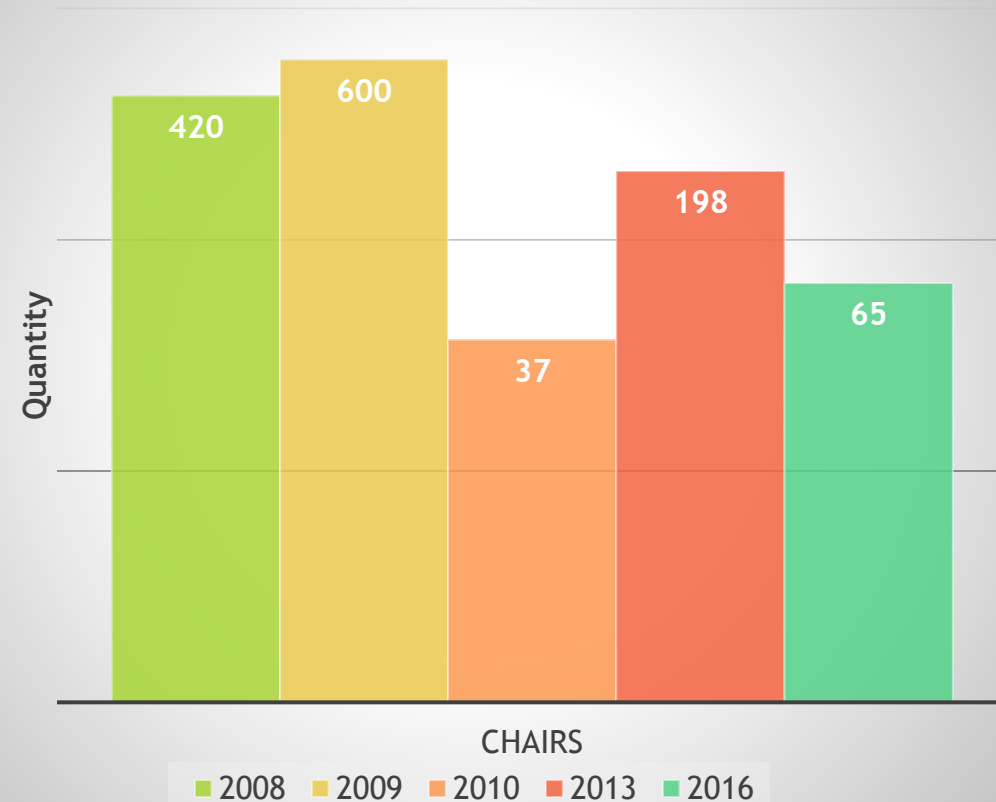
- On-site visits via Environmental Stewardship Operations Manager
- Online portal for all University members
- Purpose
 - Reduce expenses on furnishing reassigned space
 - Keep surplus out of landfill to reduce GHG emissions
 - Reduce gate/tipping fees during renovations
 - Strengthen ties with local not-for-profits and community groups
- Community Outreach
 - Columbia Community Service
 - Neighboring Churches and Shelters

Internal Reuse: Data

Yearly Comparisons: Reuse Program



Reuse Program: Chairs Collected





What about the big stuff?

About IRN

- Established in 1999, IRN (Institution Recycling Network) was designed to be a catch-all recycler for educational, healthcare and corporate institutions.
- IRN would help institutions recycle the small stuff, like paper, batteries, lightbulbs, e-waste, and everything else in between.



IRN
THE RECYCLING NETWORK

About IRN cont.

- In 2002, our partner Boston College was looking to recycle over 300 sets of dorm furniture.
- It was good stuff, and we asked why they wouldn't donate it to a charity instead of recycling it.
- BC's response? They tried. They, alongside every other college in Boston had filled up every halfway house and goodwill within three neighboring states. They just needed it to go away, sustainably.



From Recycling to Reuse

- We discovered a market failure. There was a huge need among relief organizations for useable furniture, but no one making the match.
- Potential generators - in this instance, schools who have surplus to dispose of - do not have the time or resources to network with dozens of charities worldwide.
- Among potential recipients, no one has the time and resources to contact the thousands of schools that might have furniture to offer.
- Neither side has the capability to plan and manage the projects to make the transfer happen - setting up moving crews, transportation, pack trucks, fill out customs paperwork, track the furniture to its destination.



Fast Facts about Furniture Waste

- According to the EPA's 2014 *Advanced Sustainable Materials Management* report, it is estimated that 9.8 MILLION tons of furniture were disposed into the landfill in 2009 alone.
- In the same study, it is estimated that furniture is the number one least-recycled item in the country, and one of the bulkiest to enter our landfills.
- The cost to dispose of furniture by the landfill grows by approximately 1.5% each year in the Northeast.

Mission Statement

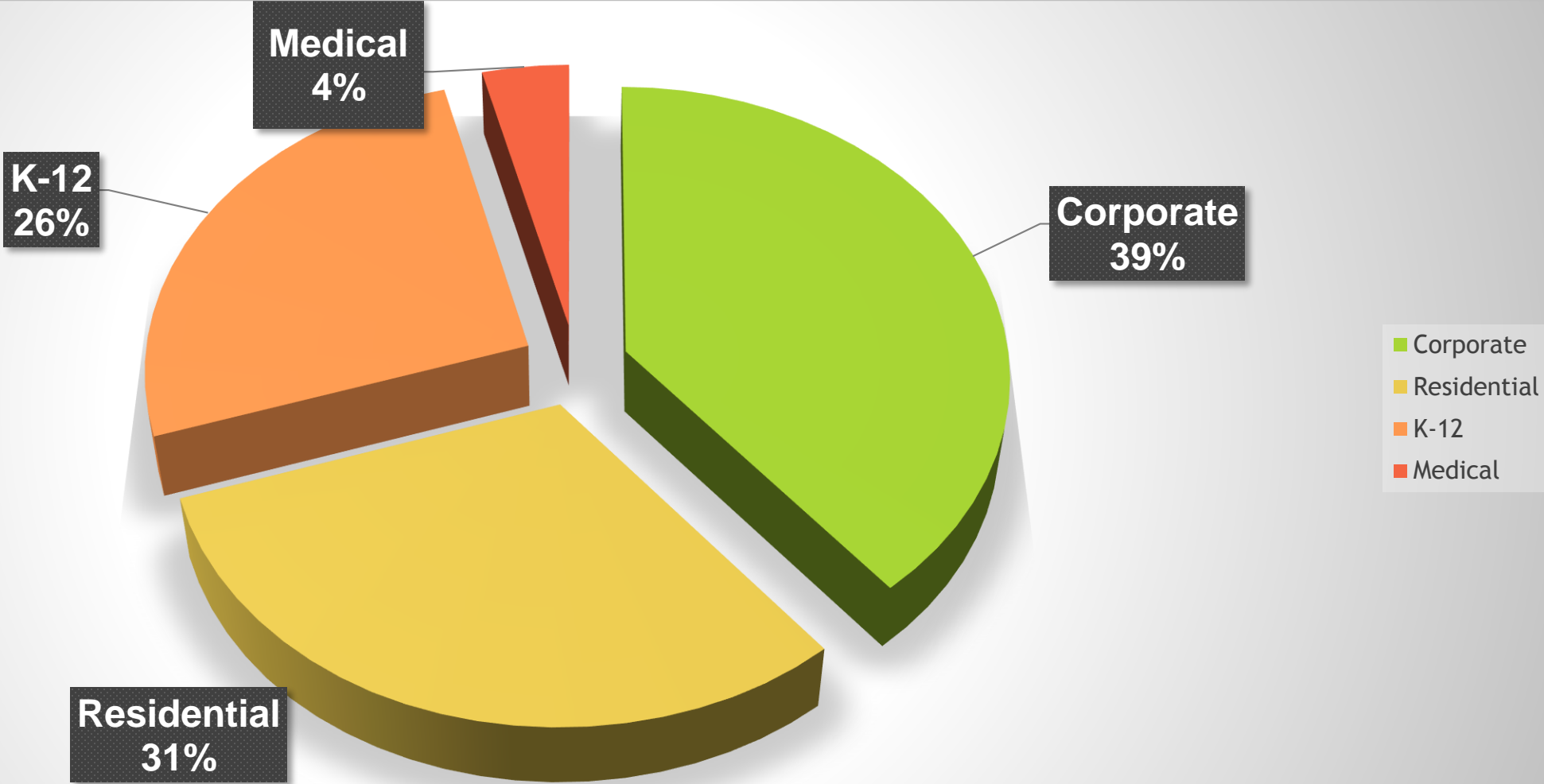
Reuse or Recycle **EVERYTHING**

Make Sure Reuse is **SIMPLE**

Make Reuse **COST EFFECTIVE**



IRN's Reuse Breakdown



Weight Reused to Date

Between 2002-2016
63,705,124 lbs.
Reused

Sibahle

Where Does It All Go?

Disaster Relief

- International Relief Efforts (Virgin Islands, Haiti, Etc.)
- Local charities in Texas, Florida, and other areas devastated by recent hurricanes.

Economic Development

International charities, charter, public, tribal and other independent schools who can furnish their spaces at essentially zero cost, releasing funds for other urgent priorities.

Domestic Humanitarian Missions

- Organizations others who resell furniture to support their humanitarian missions.
- Furniture banks that place IRN furnishings with low income residents.

Benefits of Reuse

Cost



Reuse/recycling through IRN typically costs less than disposal

Environment



Reuse/recycling diverts products from landfills and contributes toward LEED certification

Community



Schools and communities benefit for years to come

Publicity



IRN can provide press releases, stories, or other publications about your reuse/recycling projects



Columbia/IRN Partnership

2008

Our partnership

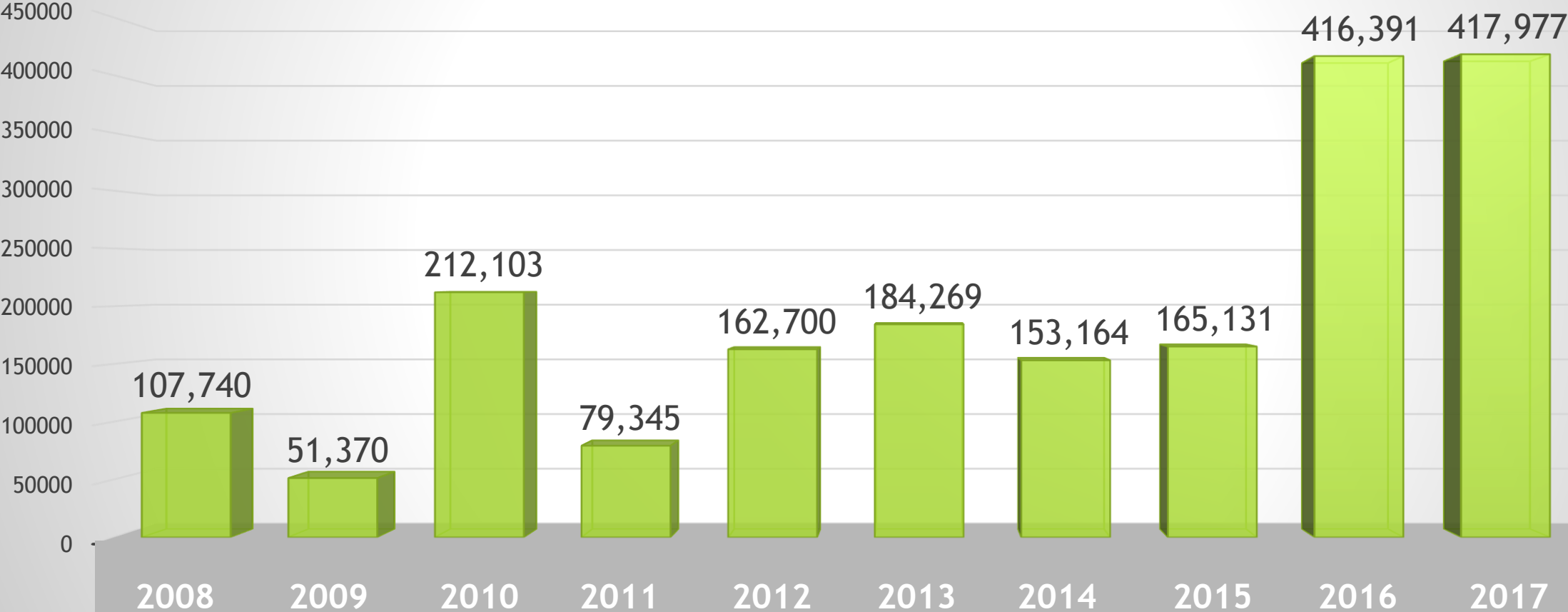
In 2008, Columbia reached out to IRN – The Reuse Network to assist in the removal and reuse of 107,740 pounds of furniture. That included desks, chairs, dressers, beds, and mattresses.

2017 was the largest offload of residence hall furniture to IRN providing 417,977 pounds to international organizations. That is 28 50 ft. containers.



IRN/Columbia Reuse Totals

Weight (In Lbs.)



Surplus Reuse: Columbia - Why they do it?



Aligns with their Sustainability plan and mission on diversion from landfills and reuse.

In the eyes of our residents, their efforts give value to the Housing brand.

Allows them to play part of a bigger role in the community and serve as guiding models for University peers.

Surplus Reuse: IRN - How it Works



Step 1: Hunting For Furniture & Photos

Step 2: Procurement Process & Cost Sharing

Step 3: Sourcing Labor

- Dining Staff
- Contractors & Vendors
- Community Outreach & Hiring Local Supervision

Step 4: Street Permits

Step 5: Staging Furniture

Step 6: Loading Days & Planning

- Flexibility
- Traffic/Weather Delays

Project Start

Initial Information



- Location
- Schedule
- Material composition and quantity
- Where and how material is stored and installed
- Basic logistics information
- Labor availability and qualifications

Site visit (if necessary)



A site visit is typical on larger projects, to review site layout, develop a detailed inventory, assess access, elevators, and stairwells, contact moving firms if needed, and meet onsite project managers.

Develop detailed inventory



The inventory is what we offer to our charitable partners, so it's important that it be accurate. Pictures are a huge plus.

Execution

Comprehensive project proposal



The proposal defines the exact scope of the project and responsibilities of all parties. Included is a detailed budget, proposed on a not-to-exceed basis; you know your maximum cost, and reap the benefit if we come in below the budget.

At this point, we will have offered the project to our network of nonprofit partners, and will have made at least a preliminary match with a recipient. When we submit a proposal, that's our commitment that we can find a partner who will reuse your surplus.

Confirm schedule and logistics



When the proposal is signed, we reconfirm start date and time, project duration, and logistics details (access to buildings, keys, local and emergency contacts, etc.). We schedule moving crews and confirm crew size. And we schedule the trailers or shipping containers that will take the surplus away.

Execute the project



IRN offers on-site project management on moving days to ensure optimum loading, inventory accuracy and quality, and to make sure logistics run smoothly.

We have a nearly 100% track record for completing projects on schedule and within budget. With hundreds of projects under our belts, it's a track record we're proud of

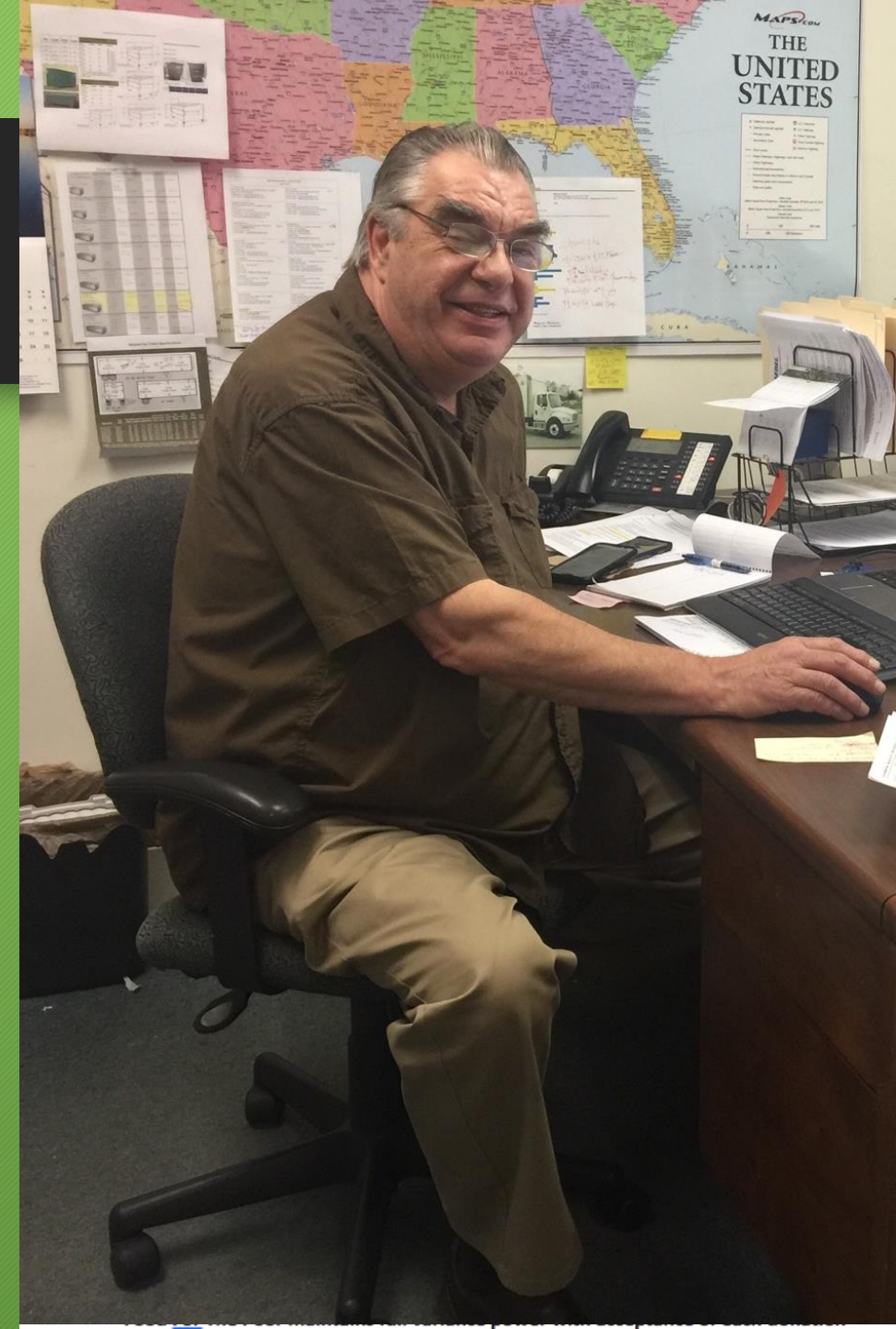
Loading a Truck

1. Have truck-specific inventory ready
2. Stage the items coming out in an accessible area (if possible)
3. Pack the beginning of the truck high and tight. Metal on metal, wood on wood, floor to ceiling
4. Make sure the truck is as full as it can be
5. Fill out paperwork and send to port



Before we send off the truck...

1. Take a picture of the back (completely open)
2. Take a picture of the back (one door closed)
3. Affix a seal specific to the container
4. Fill out customs paperwork
5. Email logistics team



From Columbia to...

Haiti



2014-2017
13,665 Items

El Salvador



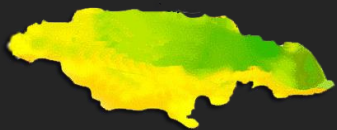
2010-2017
6,532 Items

Honduras



2012-2016
6,248 Items

Jamaica



2010-2015
4,261 Items

Guatemala



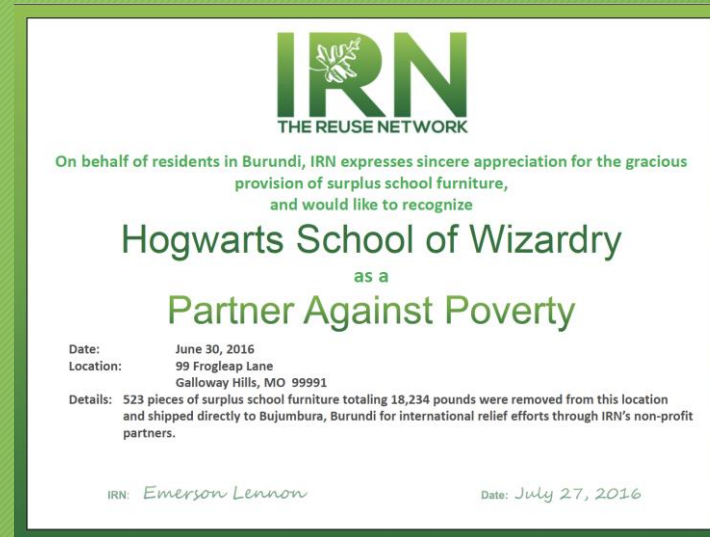
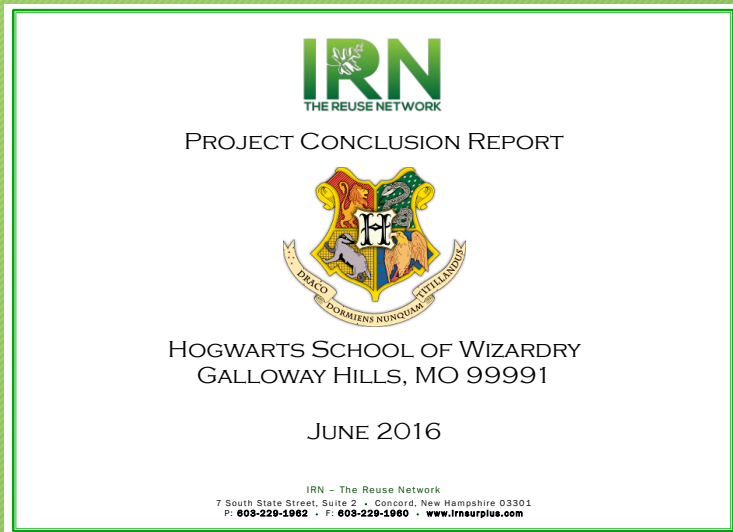
2010
3,451 Items

Nicaragua



2010
271 Items

Conclusion Package



IRN
THE REUSE NETWORK

SUR2222 Shipment Summary
Hogwarts School of Wizardry
Surplus School Furniture

June 2016 Project:

Item ID	Date	Description	Destination	Units	Weight
53438	6/30/2016	Chairs, Desk Metal/Composite, Metal	Bujumbura, Burundi	125	3,750
		Desks, Student, Lift top, Wood and Metal		117	5,850
53439	6/30/2016	Benches, Wood	Bujumbura, Burundi	1	30
		Cabinets, Floor-standing, Wood		1	30
		Cabinets, Wood		1	30
		Chairs, Center, Plastic and Metal		34	1,156
		Chairs, Desk Metal/Composite, Metal		125	3,750
		Chairs, Stacking, Wood, Metal and Plastic		89	1,513
		Desks, Student, Lift top, Wood and Metal		12	600
		Desks, Table style, Wood		2	60
		Desks, Teacher, Wood		7	1,085
		File Cabinets, Three Drawer Vertical, Metal		3	90
		Tables, Classroom, Metal and Wood		6	300
Report				523	18,234

IRN - The Reuse Network
7 South State Street, Suite 2 • Concord, New Hampshire 03301
P: 603-229-1962 • F: 603-229-1960 • www.irn surplus.com

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Cover Page

This facet of the conclusion report will usually contain the schools logo, address, and date of the project.

Reuse Certificate

Something nice to hang on the wall. This provides a synopsis of where the project was, what materials were reused, how much was diverted from the landfill, and who it is currently helping.

Shipment Summary

A detailed report of the items reused. In instances where a project has more than one recipient destination, we'll let you know where each individual item went.

From Columbia To... Nicaragua



<https://www.youtube.com/watch?v=zx42J08nfPI>

From Columbia To... Nicaragua



From Columbia To... Jamaica



From Columbia To... Jamaica



Presenters



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