It’s Complicated:
Unpacking Behaviors
to Estimate Persistence

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Cool Choices
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Yes, I was that girl.
Types of Behaviors

Year – Round Actions

Wash in cold water
Calibrate brightness on tv

Habitual Actions

Drive w AC on
Set furnace temp lower

Seasonal Actions

One-Time Actions
Likely Persistence of Behaviors

Year – Round Actions

Habitual Actions
- Wash in cold water
- Drive w AC on

Seasonal Actions
- Calibrate brightness on tv
- Set furnace temp lower

One-Time Actions
One-Time Actions

- Calibrate electronics
- Set water heater temperature
- Install faucet aerators
- Unplug, recycle old appliances

- Persist for life of equipment
One-Time Seasonal

• Adjust thermostat setting (summer or winter)
• Run furnace fan on auto vs continuous
• Install rain barrel
• Install compost bin
Habitual Actions

- Carpool to work
- Turn off water when brushing teeth
- Turn off lights, electronics when not in use
- Eat a meatless meal
- Wash laundry in cold water
Seasonal Habits

• Use A/C or open windows, based on driving speed
• Line dry clothing
• Bike to work
• Shovel walk instead of using snow blower
How Does It All Add Up?
Make Cool Choices, claim points for yourself and your team.
Game Basics

• Record actions daily for 8 weeks
• Emphasis on personal life
• Indicate if new action or not
  – No penalty for reporting pre-existing practices
• Transparent system
• Facilitates conversation
  – Coaching, collaboration, sharing
Action-Specific Assumptions

• Estimated annual savings
  – Kwh, therms, water, gasoline, landfill waste
  – CO2, Dollars

• Persistence of savings

Players don’t see any of this
2,600 Participants

- Two manufacturers
- Meat processor
- Law firm
- University extension system
- Five units of local government
Adjust Water Heater Temperature

• 15 therms annually
• 7.5 years (half the life of water heater)
• 17% of players reported as new action

• Annual savings: 6,750 therms
• Lifetime savings: 50,625 therms
Calibrate Flat Panel TV

- 55 kwh
- 2.5 years (half the life of the TV)
- 15% of players reported as new action

- Annual savings: 22,055 kwh
- Lifetime savings: 55,138 kwh
Install a Rain Barrel

- 650 gallons of water / year
- 5 year persistence
- 1% of players reported as new action

- Annual savings: 14,950 gallons of water
- Lifetime savings: 74,750 gallons of water
Drive 65 mph vs 75 mph on Highway

• 39 gallons gas/year
• 0.5 (6 months) persistence
• 20% of players reported as new action

• Annual savings: 20,008 gallons of gasoline
• Lifetime savings: 10,004 gallons of gasoline
Bike to Work

• 4.8 gallons gas / year
• 1 year persistence
• 7% of players reported as new action

• Annual savings: 3,513 gallons of gasoline
• Lifetime savings: 3,513 gallons of gasoline
Annual Carbon Savings

Habitual Year-Round: 53%
One-Time Year-Round: 27%
One-Time Seasonal: 18%
Habitual Seasonal: 2%
Lifetime Carbon Savings

- One-Time Year-Round: 51%
- Habitual Year-Round: 20%
- One-Time Seasonal: 28%
- Habitual Seasonal: 1%
Beyond the Black Box
Thanks!

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