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**Assessing and Documenting the Costs of  
Compliance With E-Waste Take Back Legislation  
November 3, 2010**

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# Consumer Electronics Association

- Represents more than 2,000 companies in the \$165 billion U.S. consumer electronics industry
- Membership includes component suppliers, device manufacturers, retailers, distributors and service providers



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# U.S. Industry Initiatives

- Research and analysis
- Public policy
- Industry standards
- Consumer education
- Promotion and recognition
- Other initiatives and current challenges



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# Research and Analysis

- CEA is the leading market research entity for consumer electronics in the U.S.
  - U.S. TV shipments
  - Consumer usage of electronics
- Good data and analysis supports good decision-making



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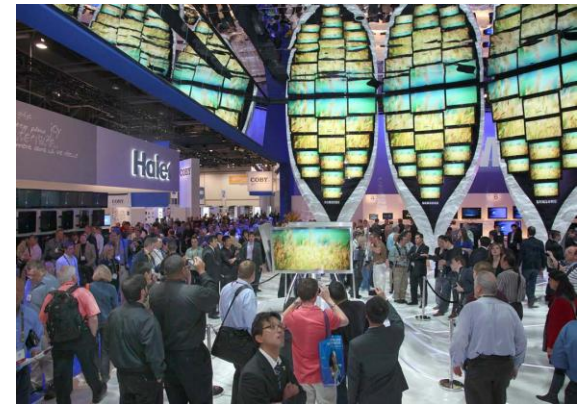
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# Promotion & Recognition

- International CES
  - Company exhibits; Sustainability TechZone; conference sessions; eco-design award



# Consumer Education

[www.digitaltips.org/green](http://www.digitaltips.org/green)

**digitaltips**  
Your Ultimate Guide to Consumer Electronics

SEARCH DIGITALTIPS.ORG GO

Audio Digital Imaging TV/Video Home Systems Car Electronics Wireless **Green**

### Your Digital Tip: Go Green to Get Green

Rewards for recycling give you a little nudge to do nature right.

Did you know that you could receive a [monetary reward just for recycling your old electronics](#)? No joke. Not only will you get that warm and fuzzy feeling from doing something good but you may even gain some more green for your wallet!

#### Reduce

- Tips for Saving Energy**  
Responsible, [energy-conscious use of electronics](#) not only saves energy; it can save you money, too!
- Energy Calculator**  
Find out what your [electronics' use](#) means for your wallet by the minute, day, month and year.

#### Recycle

- Donate Your Old Electronics**  
Help reduce the presence of electronics waste through [reuse programs](#).
- Corporate Recycling Programs**  
Take advantage of convenient, nationwide electronics [recycling programs](#) from consumer electronics manufacturers and retailers.

#### Recycle Your Electronics

See a list of nationwide CE [manufacturer and retailer take-back and recycling programs](#), or enter your zip code below to search for electronics recyclers in your area.

Enter what you need to recycle and your zip code or city and state.

what?   
example: computers, cell phones, etc.

where?  GO  
zip or city and state

Powered by  
 Earth911.com

# E-Waste Compliance: The Basics

- Now 23 states with some form of e-waste mandate
  - First state was California: financing based on consumer fee
  - The next 22 states: producer responsibility in many forms
- Burden on manufacturers vary greatly across the 22 states



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# Manufacturer Responsibility Concept

- AKA “producer” responsibility
- Still a relatively new concept in the United States
- Mandated vs. voluntary
- Very different operationally from manufacturing process
- Differing manufacturing models suggest that takeback models may also differ

# Manufacturer Responsibility

## Concept (cont)

- Reverse distribution challenges
  - May, but often does not mirror new product distribution system
    - Many manufacturers make products and then sell to distributors to get products to consumers
      - Limited interaction between most manufacturers and consumers
      - Most interaction via media
    - New product distribution systems highly advanced
      - Not driven by economics, no \$ pull like new

# Manufacturer Responsibility Concept (cont)

- For all companies environmental compliance costs are to be minimized
  - A cost of doing business
  - Do not generate revenue
  - Usually are not integrated into a company's overall business model
  - So what are those costs?



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# Compliance Costs

- Operational costs
  - For larger manufacturers this is usually the largest cost
  - Includes logistics, recycling services, vendor due diligence, etc.
- Other compliance costs
  - The biggest burden for smaller manufacturers
  - Registration fees, reporting, data tracking, plans, determining compliance requirements

# Operational Compliance

- Operational arrangements vary across the industry
  - Manufacturer consortia (MRM)
  - Direct manufacturer/recycler arrangement
    - Usually made with larger recyclers that operate across states
  - Distributor/retailer arrangements emerging
  - Direct arrangements between manufacturers and (many, many) collectors is more rare

# Other Compliance/Paperwork

- Manufacturer registration required in 20 states
  - Registration fees now required in 18
    - All separate forms
  - Per manufacturer fees across states range from \$50,000 to \$100,000+
- Recycling plans
  - Sometimes embedded in registration process (NY)

# Compliance/Paperwork (cont)

- Determining compliance requirements
  - 12 different sets of product scope
  - 9 different sets of “covered entities” (who is entitled to access the state recycling system)
  - Sometimes mandates very specific, sometimes not
- Data tracking and reporting

# Other Drivers

- Brand risk
  - A very high hurdle for recyclers looking to do business with manufacturers
  - CANNOT wind up on 60 Minutes
- Industry dynamics
  - Overall health of the industry
  - Companies and products wax and wain
- Technology in constant change



# 2010 CEA Consumer Survey

- Fielded in late July during the period July 22-25, 2010 by the research firm ORC
- Results weighted to reflect national demographics
- The margin of sampling error at 95% confidence for aggregate results is +/-3.1%. Sampling error is larger for subgroups of the data. As with any survey, sampling error is only one source of possible error.



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# CEA Consumer Survey (cont)

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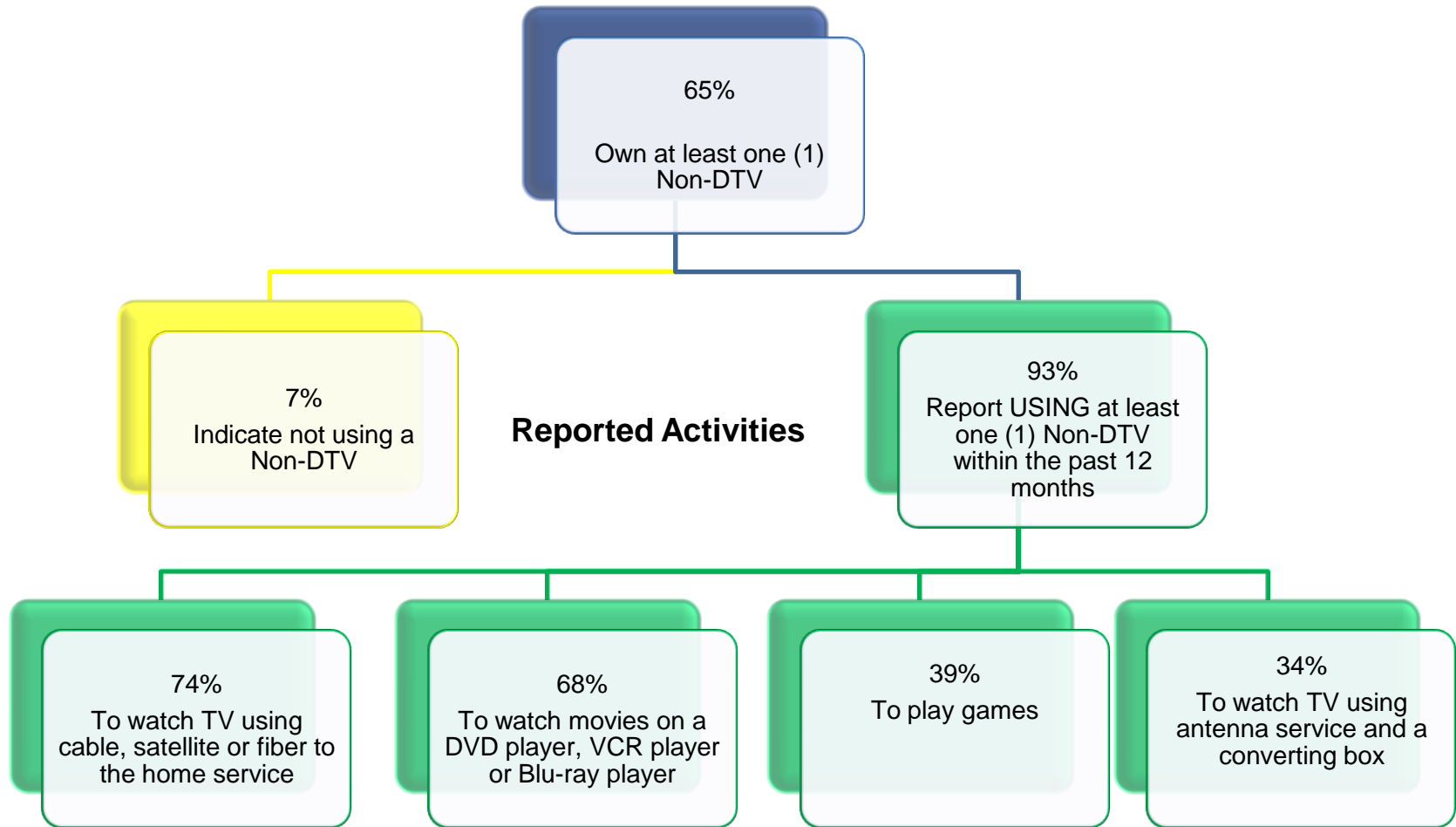
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# Usage of Non-DTVs

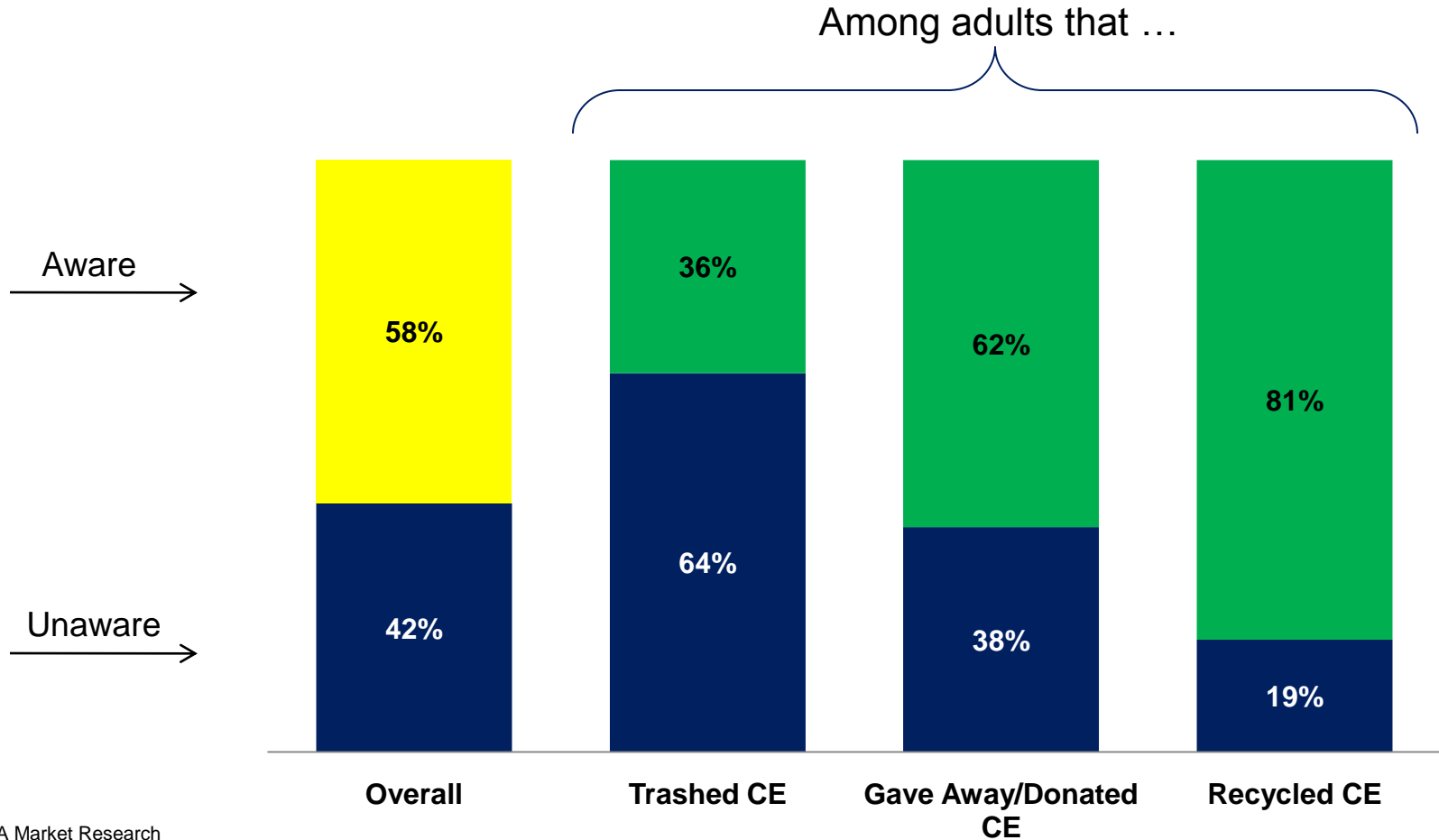


Source: CEA Market Research

Thinking about your non-digital TVs, how many, if any, have been used in the PAST 12 MONTHS, that is, used to watch TV, gaming, etc?

Base: U.S. Adults that OWN a NON-DTV (n=628)

# Awareness of Where to Recycle CE



Source: CEA Market Research  
Q. Do you know where you can recycle consumer electronics products?  
Base: U.S. Adults (n=1000)



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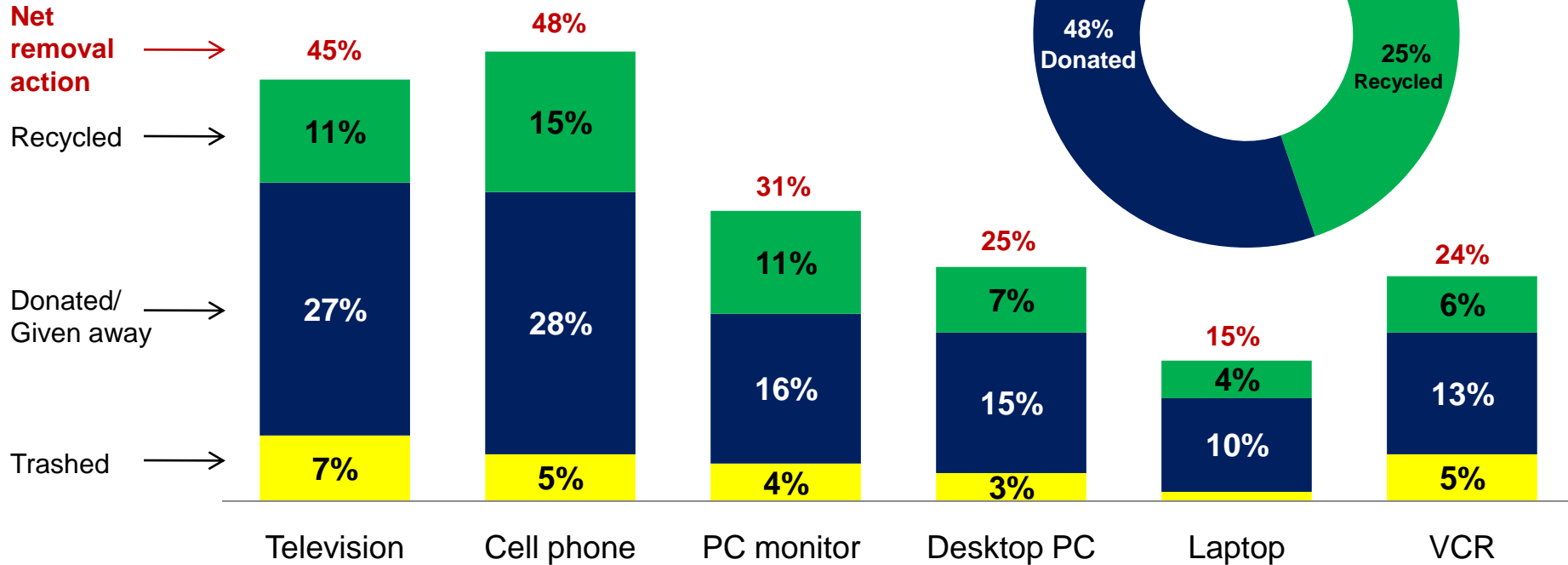
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# Removal Action

% Devices Trashed/Donated/Recycled



Source: CEA Market Research

Q. Thinking over the PAST 12 MONTHS, how many of the following devices, if any, have you thrown in the trash? Base: U.S. Adults that have thrown away CE (n=135)

Q. Still thinking of the PAST 12 MONTHS, how many of the following devices that you owned and used, if any, have you given away or donated? Please only refer to devices given away or donated and NOT recycled. Base: U.S. Adults that have donated CE (n=476)

Q. And still thinking of the PAST 12 MONTHS, how many of the following devices, if any, have you RECYCLED? Base: U.S. Adults that have recycled CE (n=253)



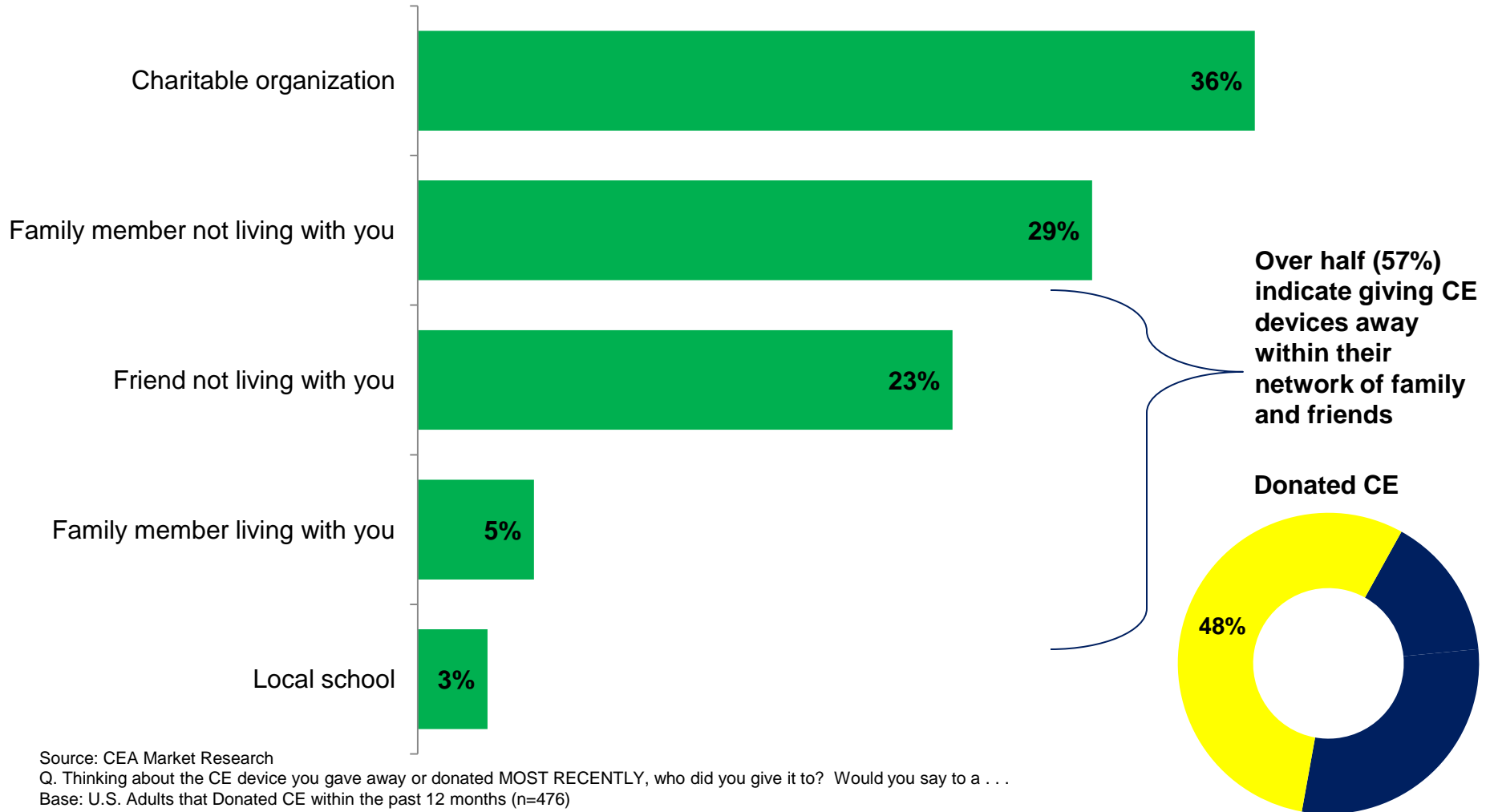
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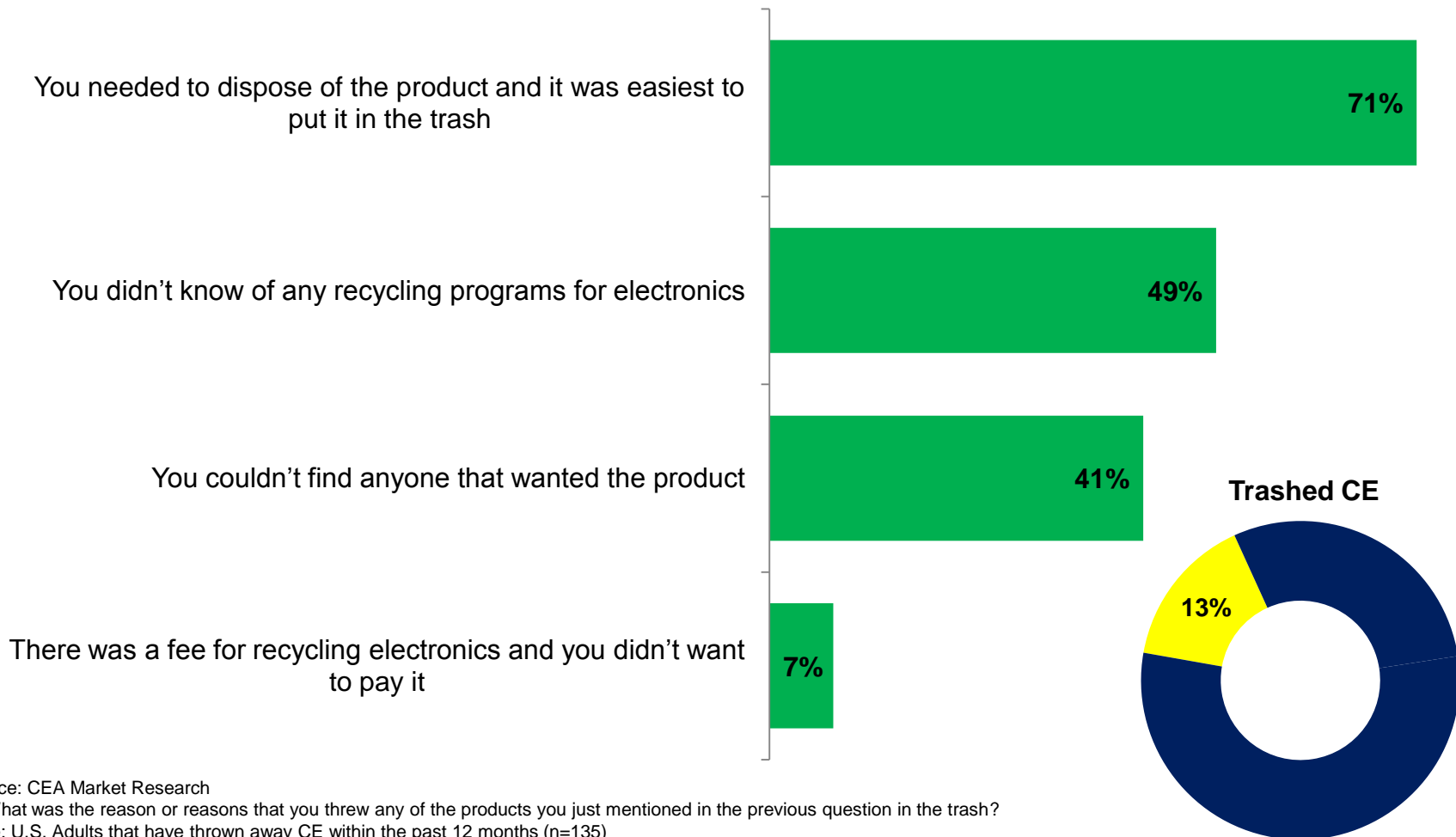


# Donated CE Likely to go to Family & Friends



# Reasons for Trashing CE

## Foregoing on donation and recycling



Source: CEA Market Research

Q. What was the reason or reasons that you threw any of the products you just mentioned in the previous question in the trash?

Base: U.S. Adults that have thrown away CE within the past 12 months (n=135)



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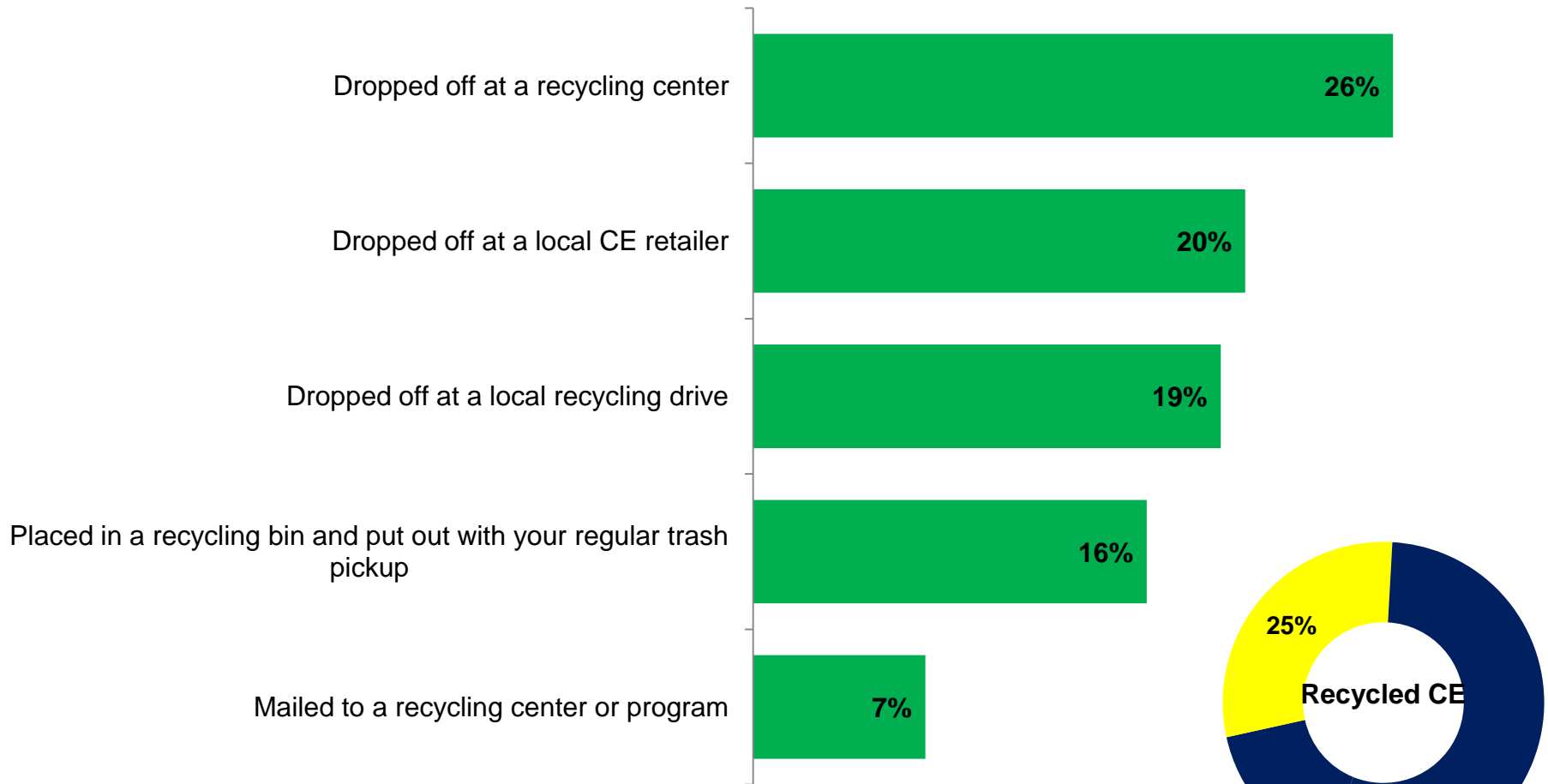
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# Recycling Centers Top Method for Recycling CE



Source: CEA Market Research  
Q. Thinking about the CE device you recycled MOST RECENTLY, how did you recycle it? Was it . . .  
Base: U.S. Adults that Recycled CE within the past 12 months (n=253)



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# For More Information....



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