



CEA[®]
Consumer Electronics Association

CE.org

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

Walter Alcorn
Consumer Electronics Association (CEA)
walcorn@CE.org

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



Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

CE.org

PRODUCER OF



Consumer Electronics



Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

CE.org

PRODUCER OF



U.S. Industry Initiatives

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



Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

CE.org

PRODUCER OF



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



Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

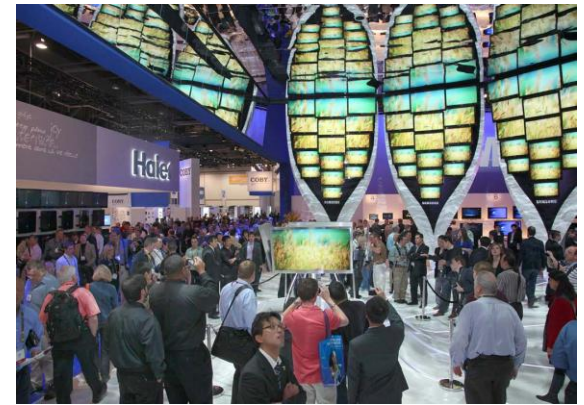
CE.org

PRODUCER OF



Promotion & Recognition

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



Consumer Education

www.digitaltips.org/green

The screenshot shows the 'digitaltips' website with the tagline 'Your Ultimate Guide to Consumer Electronics'. A search bar is located at the top right. A navigation bar below the search bar includes categories: Audio, Digital Imaging, TV/Video, Home Systems, Car Electronics, Wireless, and Green. The main content area features a 'Your Digital Tip: Go Green to Get Green' section with an image of a tree on a screen. Below this are two columns of tips: 'Reduce' (Tips for Saving Energy, Energy Calculator) and 'Recycle' (Donate Your Old Electronics, Corporate Recycling Programs). On the right side, there is a 'Recycle Your Electronics' section with a search form for manufacturer and retailer take-back and recycling programs, and a search for electronics recyclers by zip code or city and state. The page is 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



Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

CE.org

PRODUCER OF



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?



Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

CE.org

PRODUCER OF



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.



Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

CE.org

PRODUCER OF



2010 CEA Consumer Survey

- This quantitative study was administered via a telephone survey to random national sample of 1,000 U.S. adults
- 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.



Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

CE.org

PRODUCER OF



CEA Consumer Survey (cont)

- This quantitative study was administered via a telephone survey to random national sample of 1,000 U.S. adults
- 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.



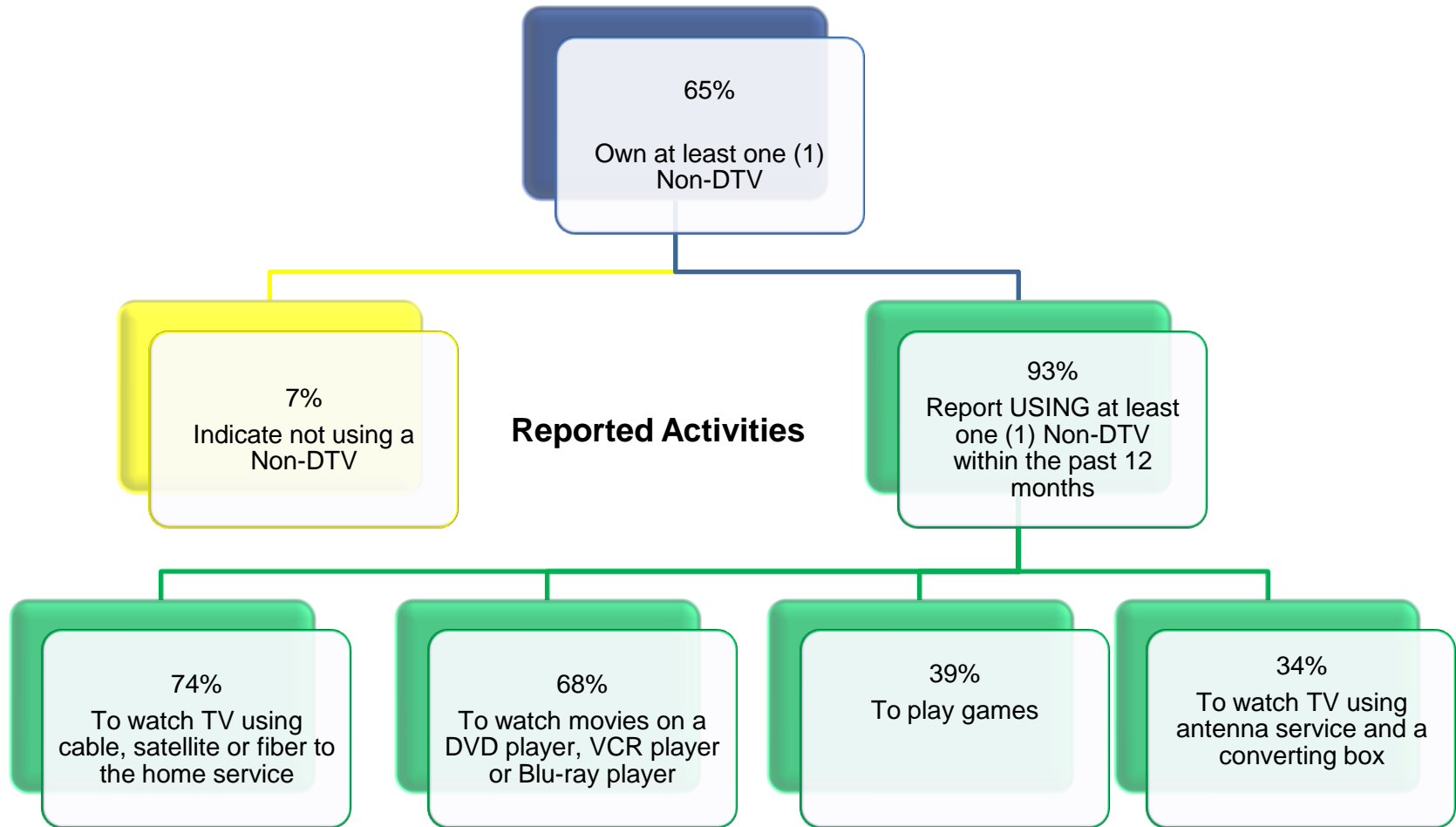
Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

CE.org

PRODUCER OF



Usage of Non-DTVs

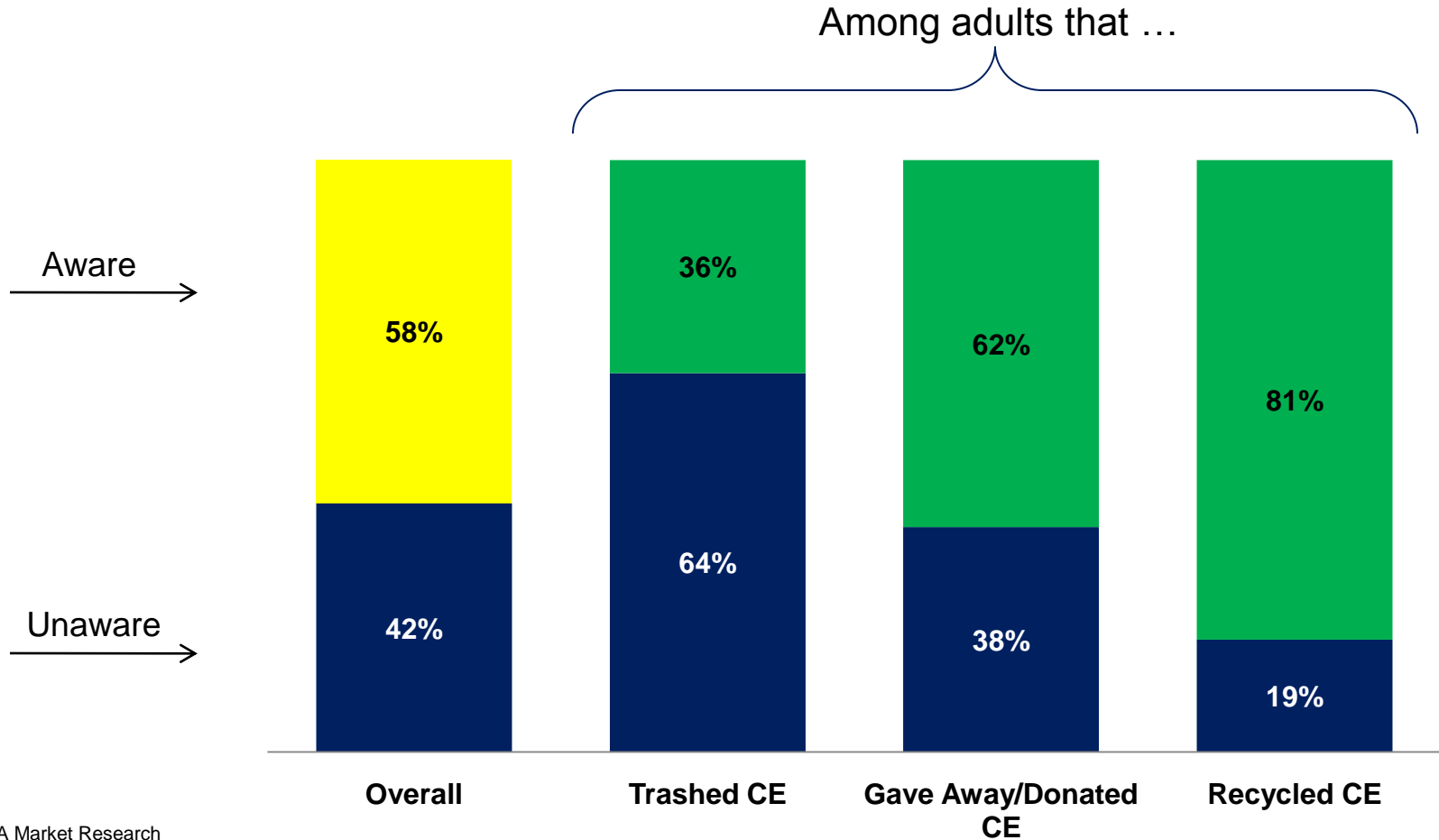


Source: CEA Market Research

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)



Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

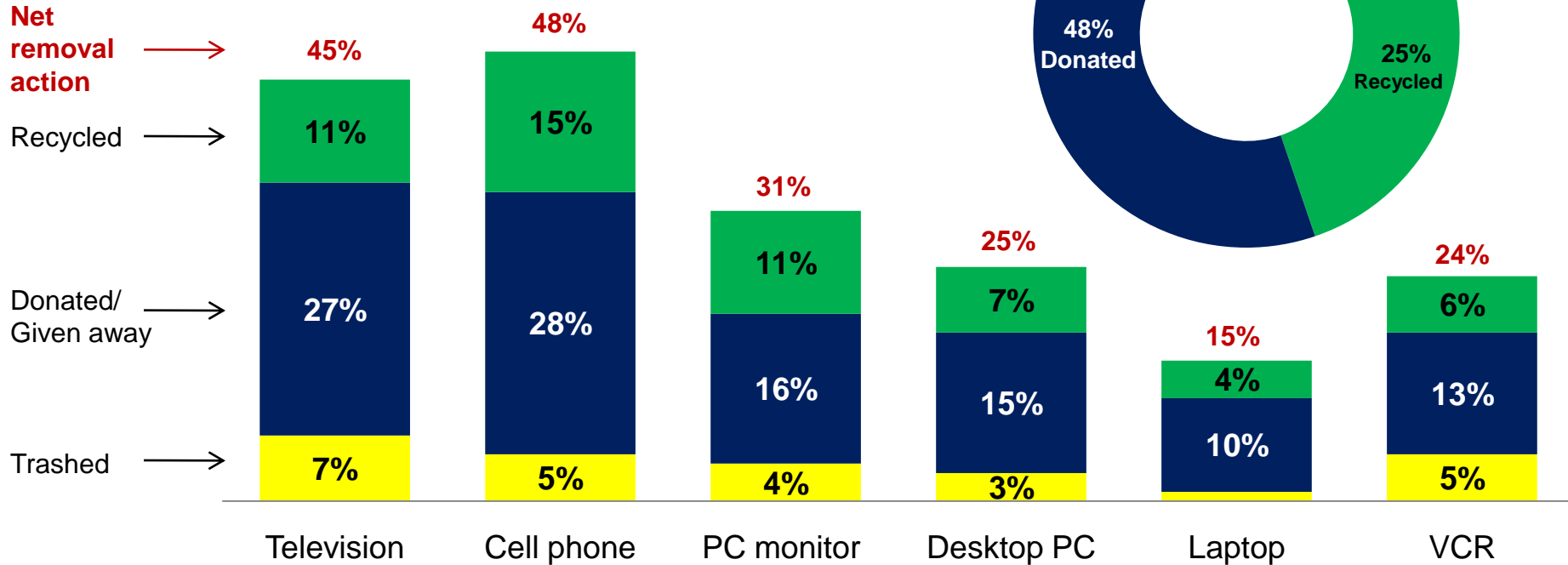
CE.org

PRODUCER OF



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)



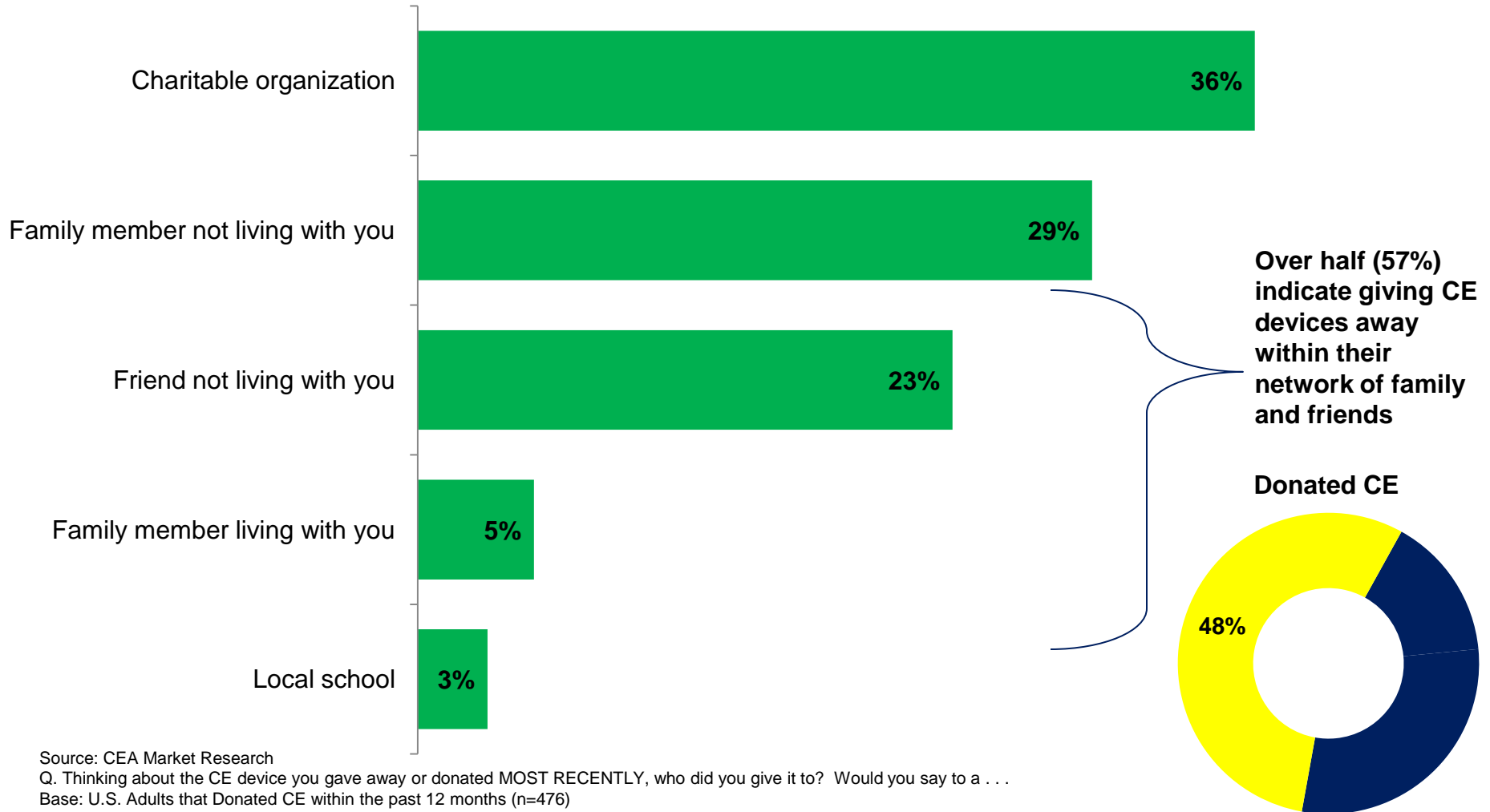
Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

CE.org

PRODUCER OF

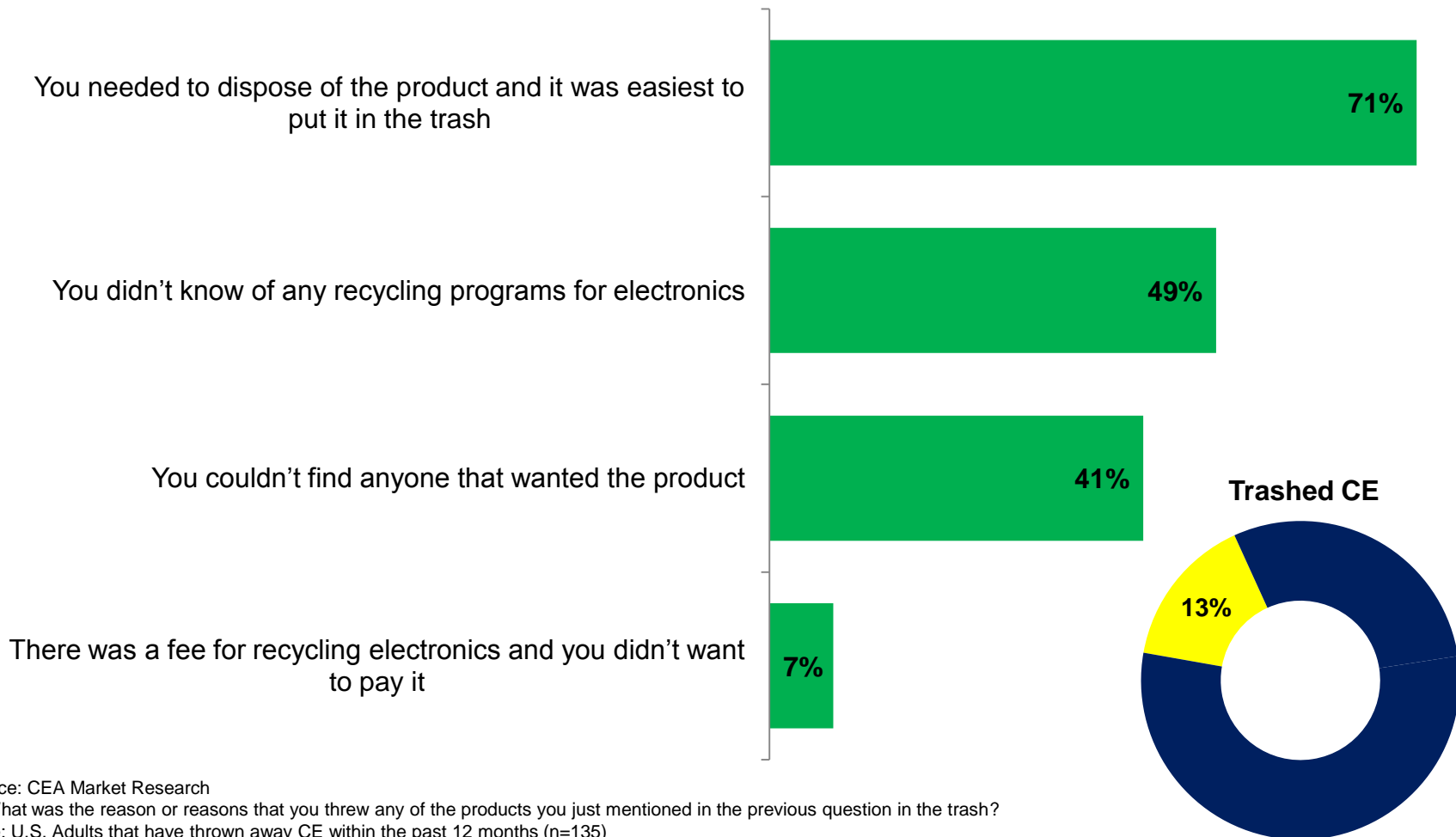


Donated CE Likely to go to Family & Friends



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)



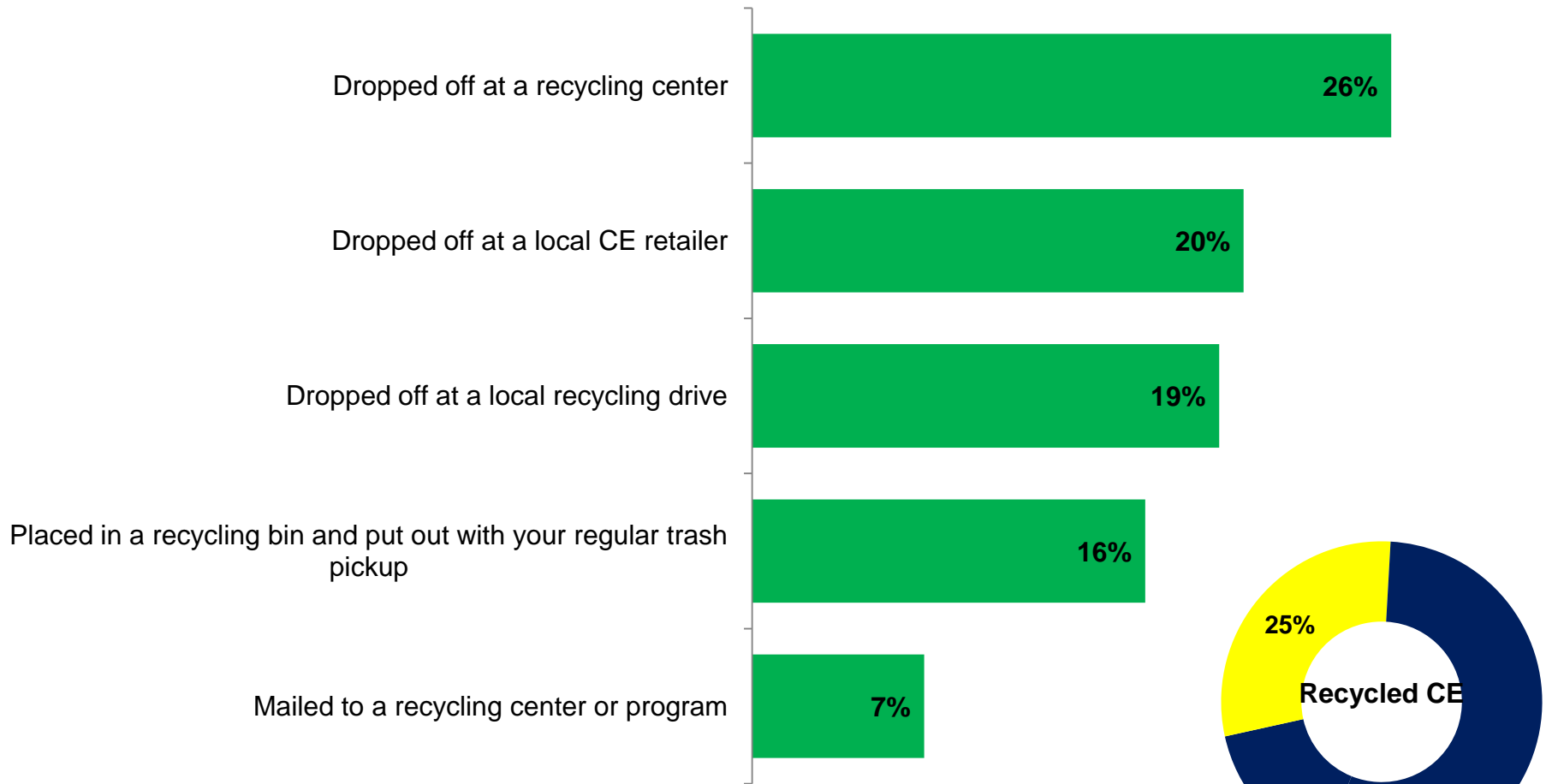
Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

CE.org

PRODUCER OF



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)



Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.

CE.org

PRODUCER OF



For More Information....



CEA[®]
Consumer Electronics Association

PRODUCER OF



Walter Alcorn

walcorn@CE.org

703-907-7765

CE.org/green

Copyright © 2010 Consumer Electronics Association. All rights reserved. Do not reproduce, redistribute, post online, or otherwise reuse this work without permission.