A Feedback App that Improves Use of Computer Sleep Settings: Field Test Results




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Desktop Computers and Sleep

Why study desktop computers?

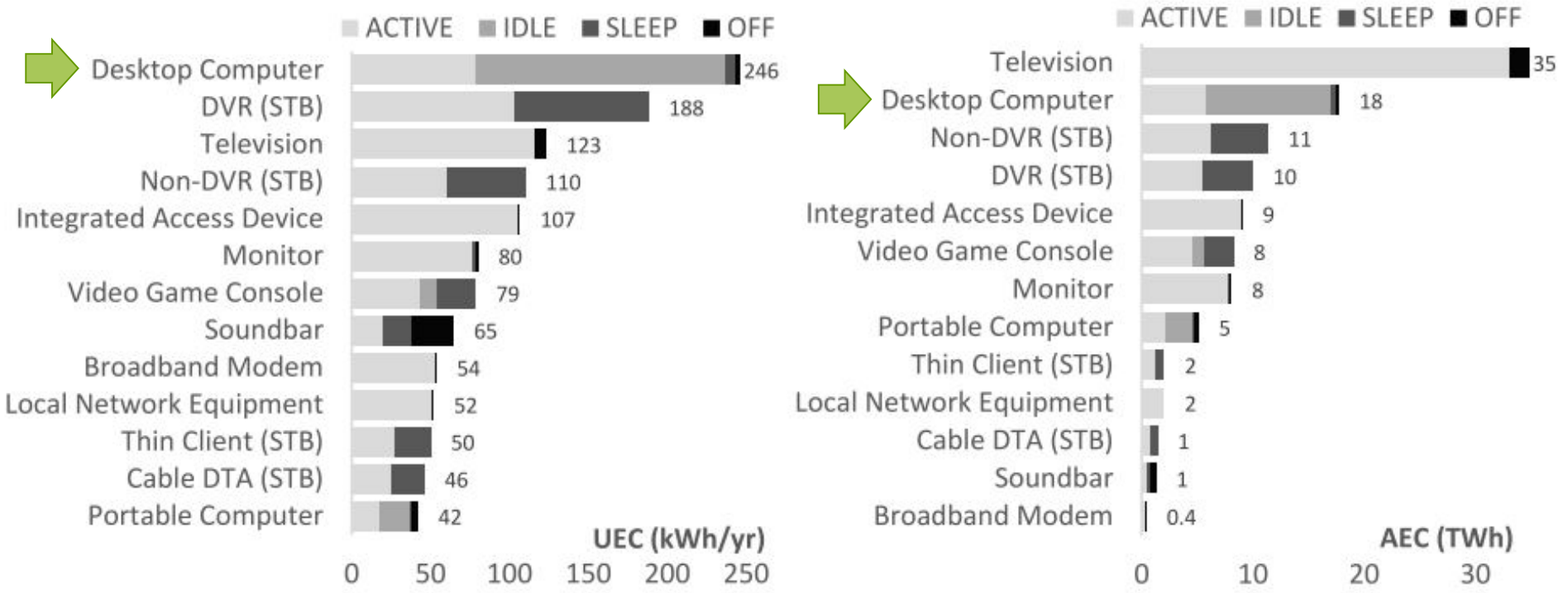
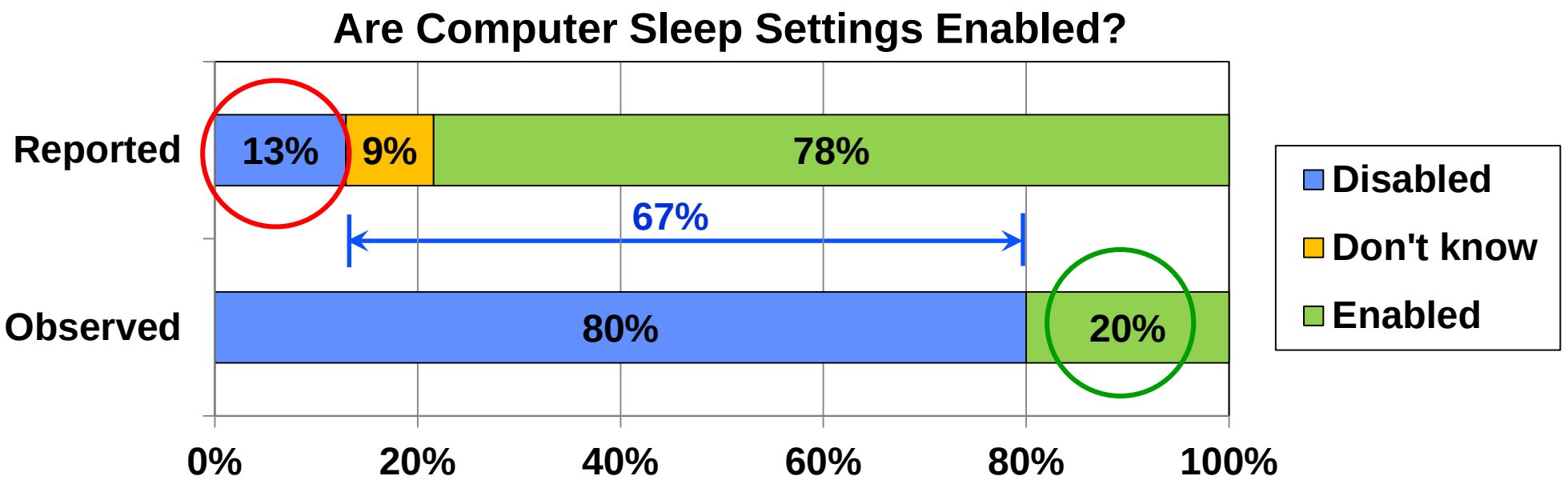


Figure ES-2. Unit energy consumption and annual energy consumption by mode for devices studied in depth.

Source: Urban, Roth, Singh and Howes 2017. Fraunhofer USA. "Energy Consumption of Consumer Electronics in. U.S. Homes in 2017"

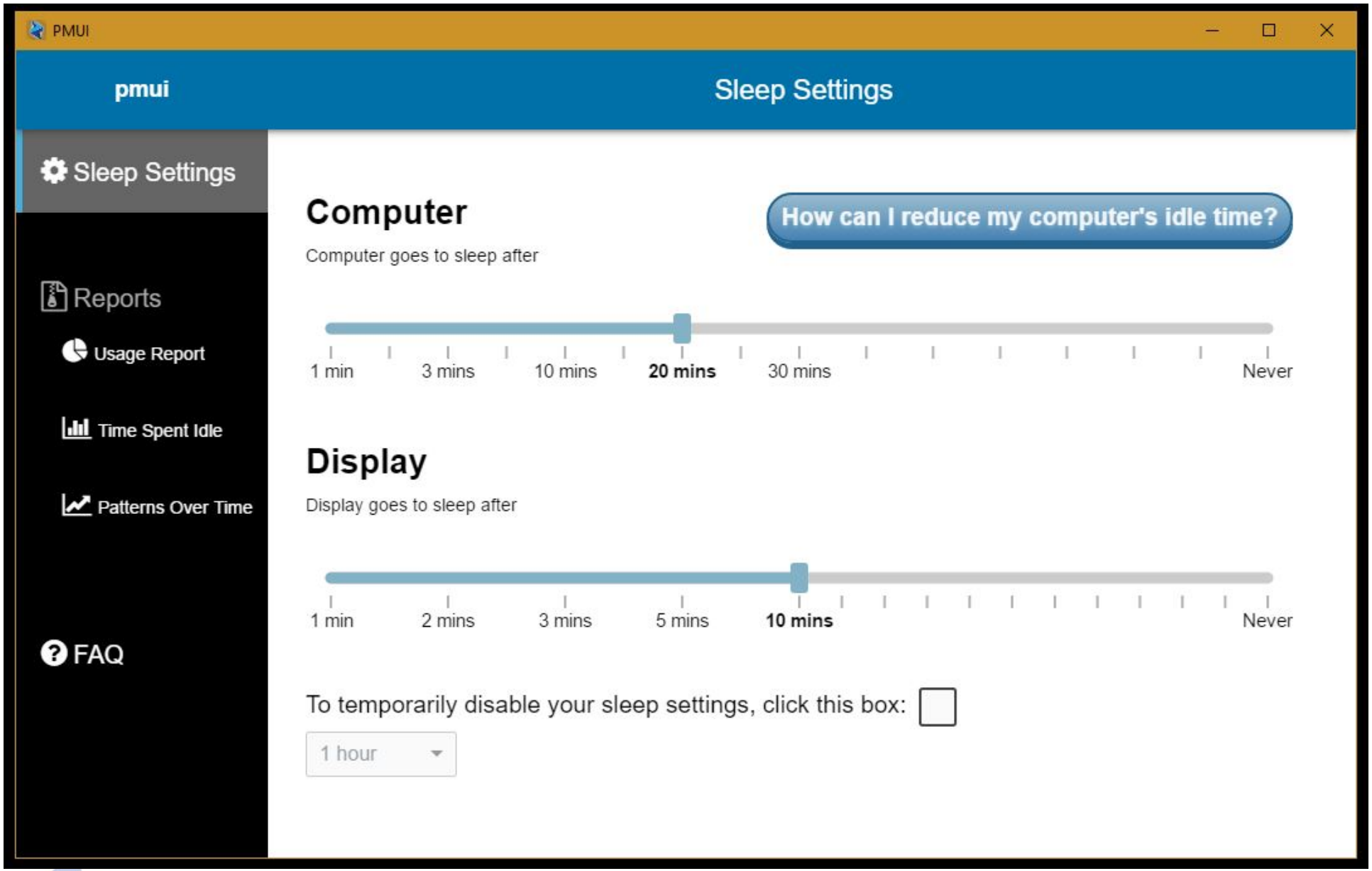
Desktop Computers and Sleep

Problem: Despite sleep settings options, desktops are left on and idle.

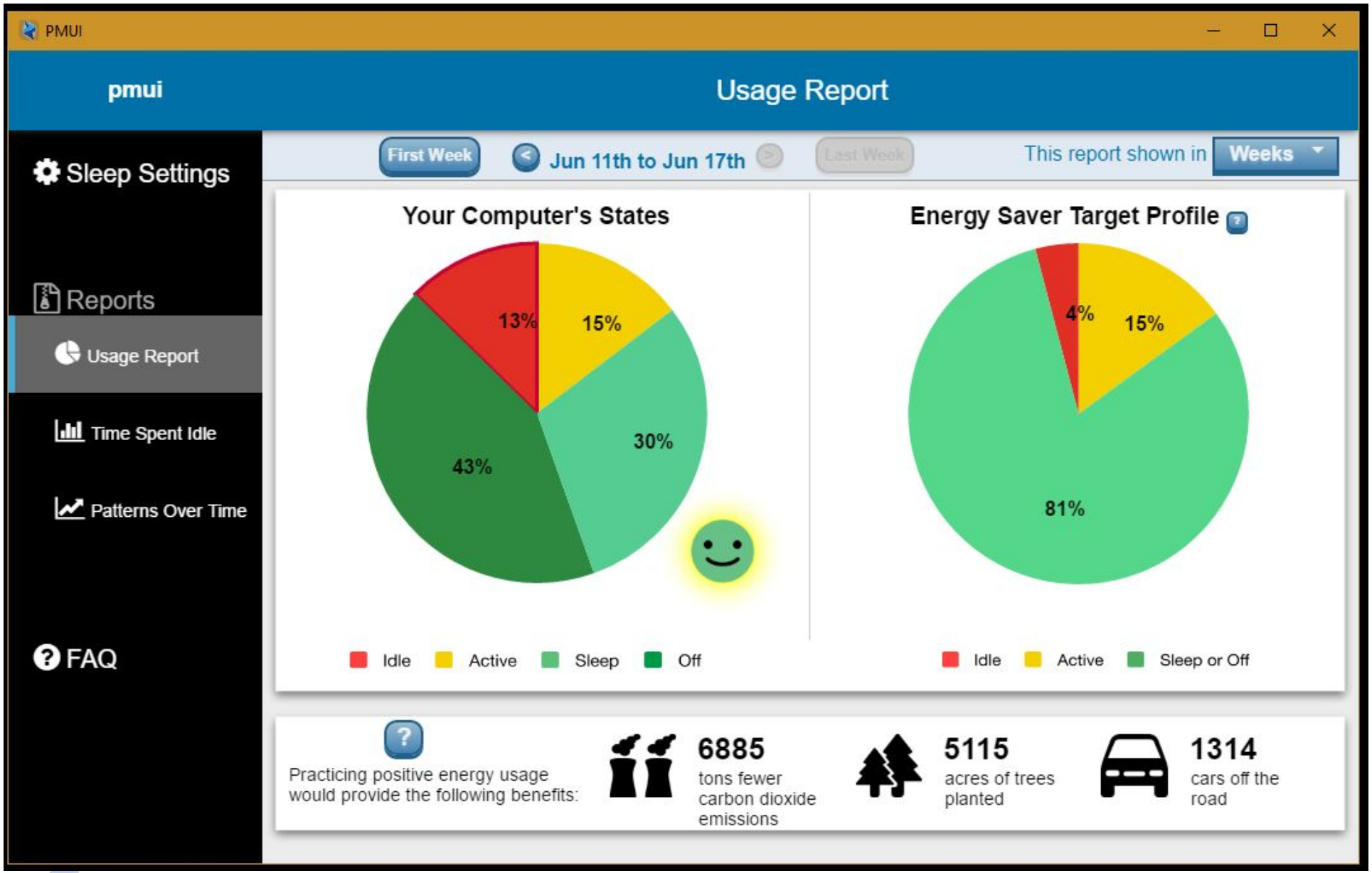


Solution: New interface that gives users feedback and encouragement.

Power Management User Interface



Power Management User Interface

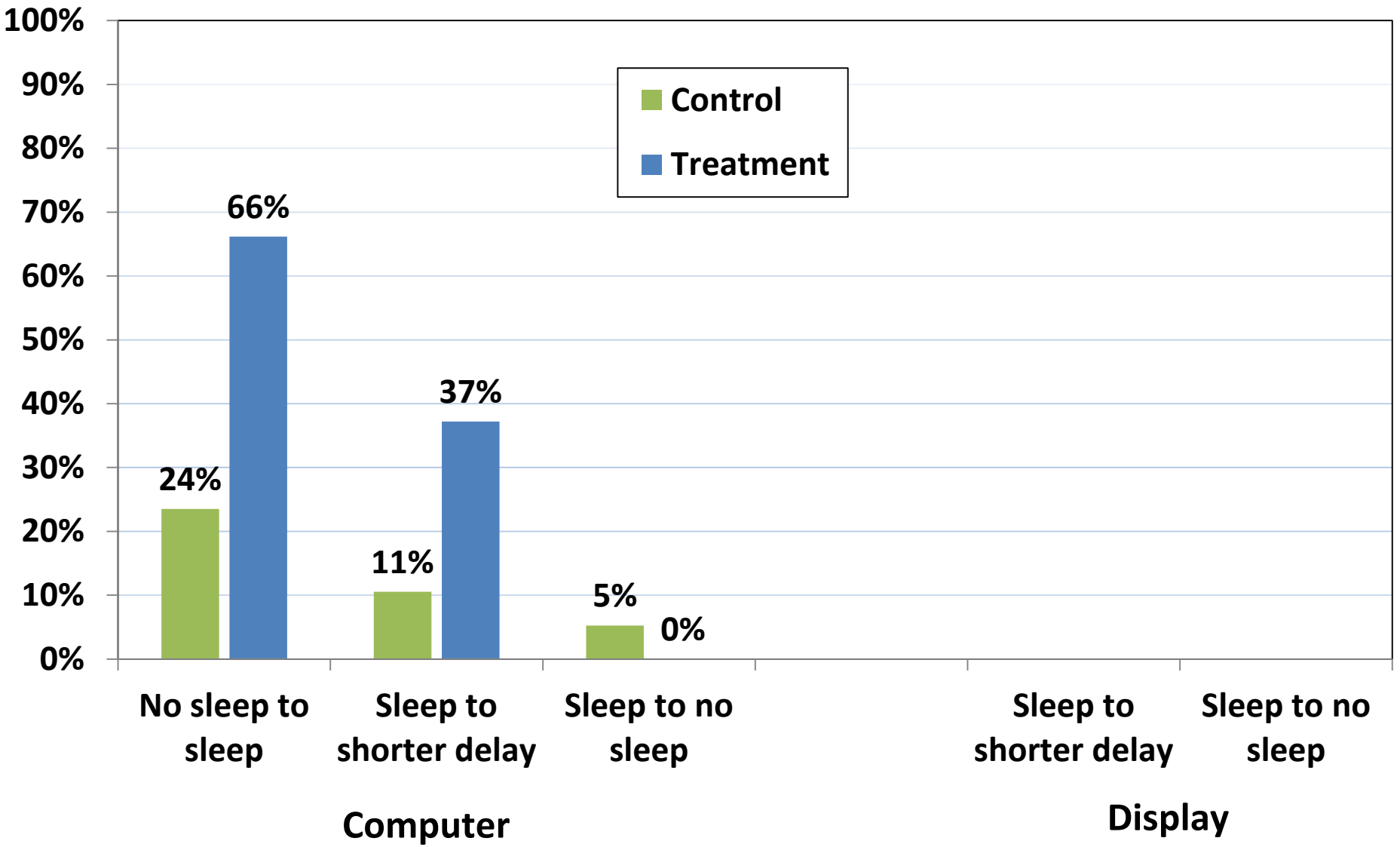


Field Test

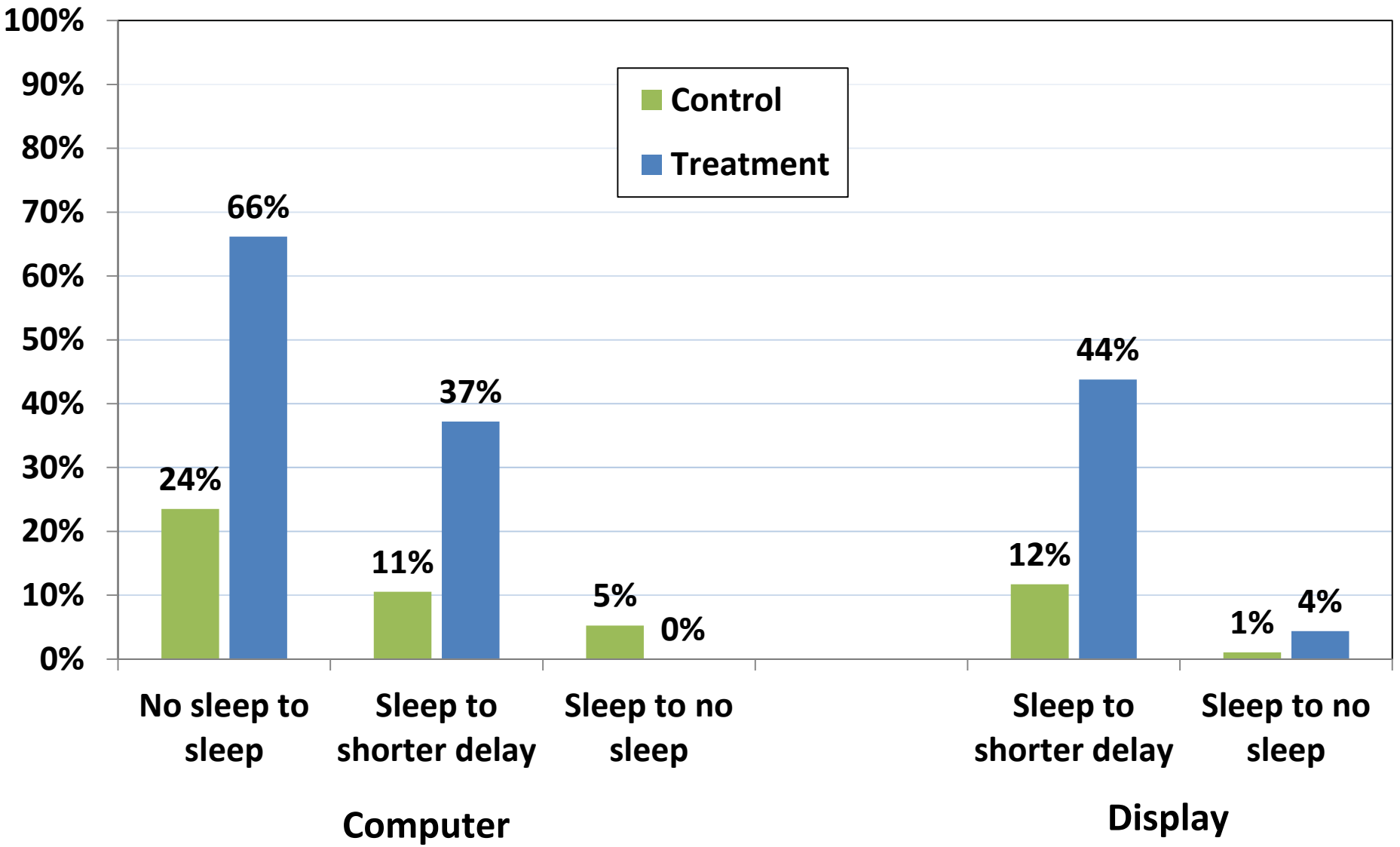
- Sample: 407 university staff members with desktops
- 75% treatment versus 25% control group
- 1 month baseline, 2 months experimental

How many had sleep enabled initially?

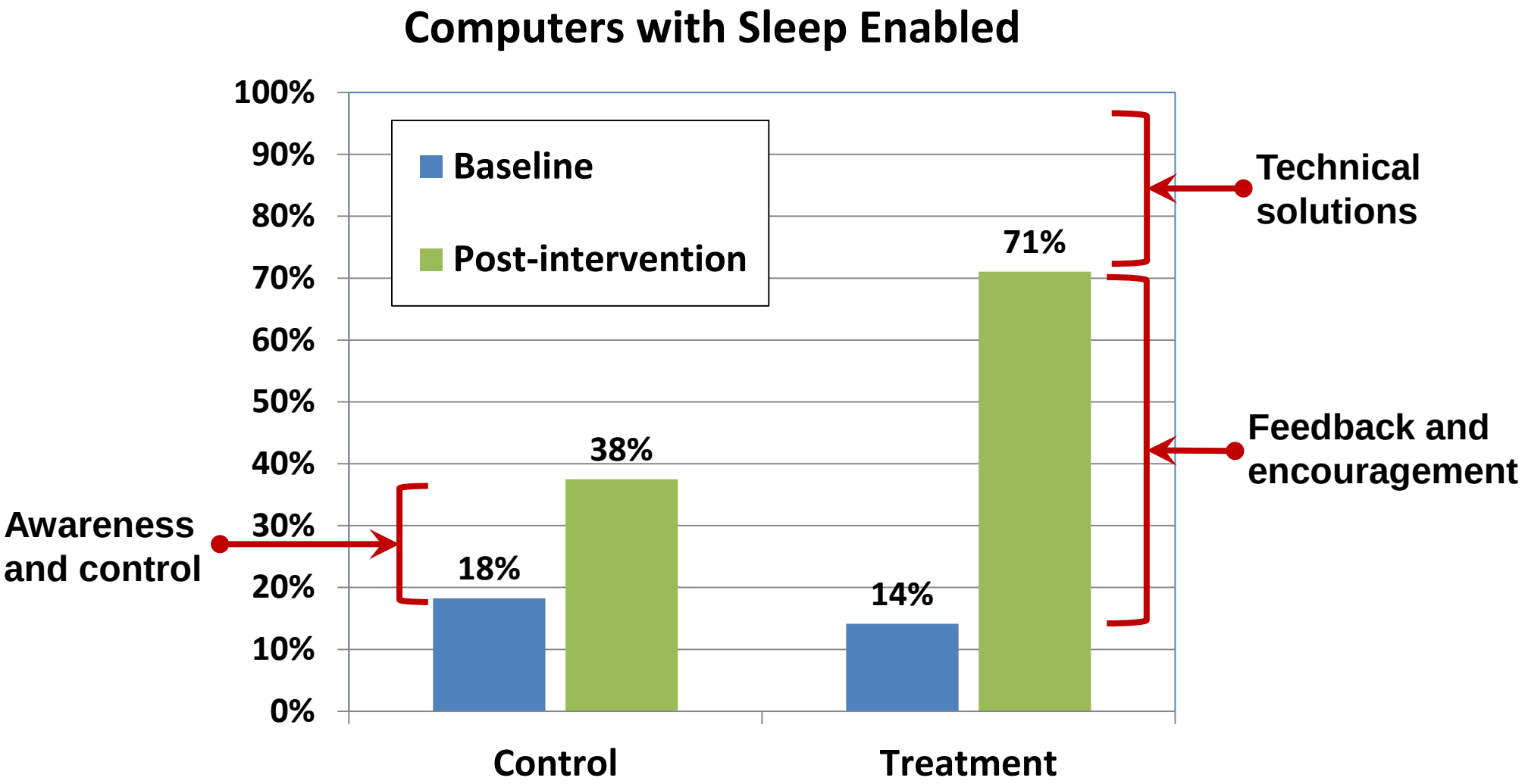
Field Test Results



Field Test Results



Conclusion: Feedback Works



Questions?

Thank you!

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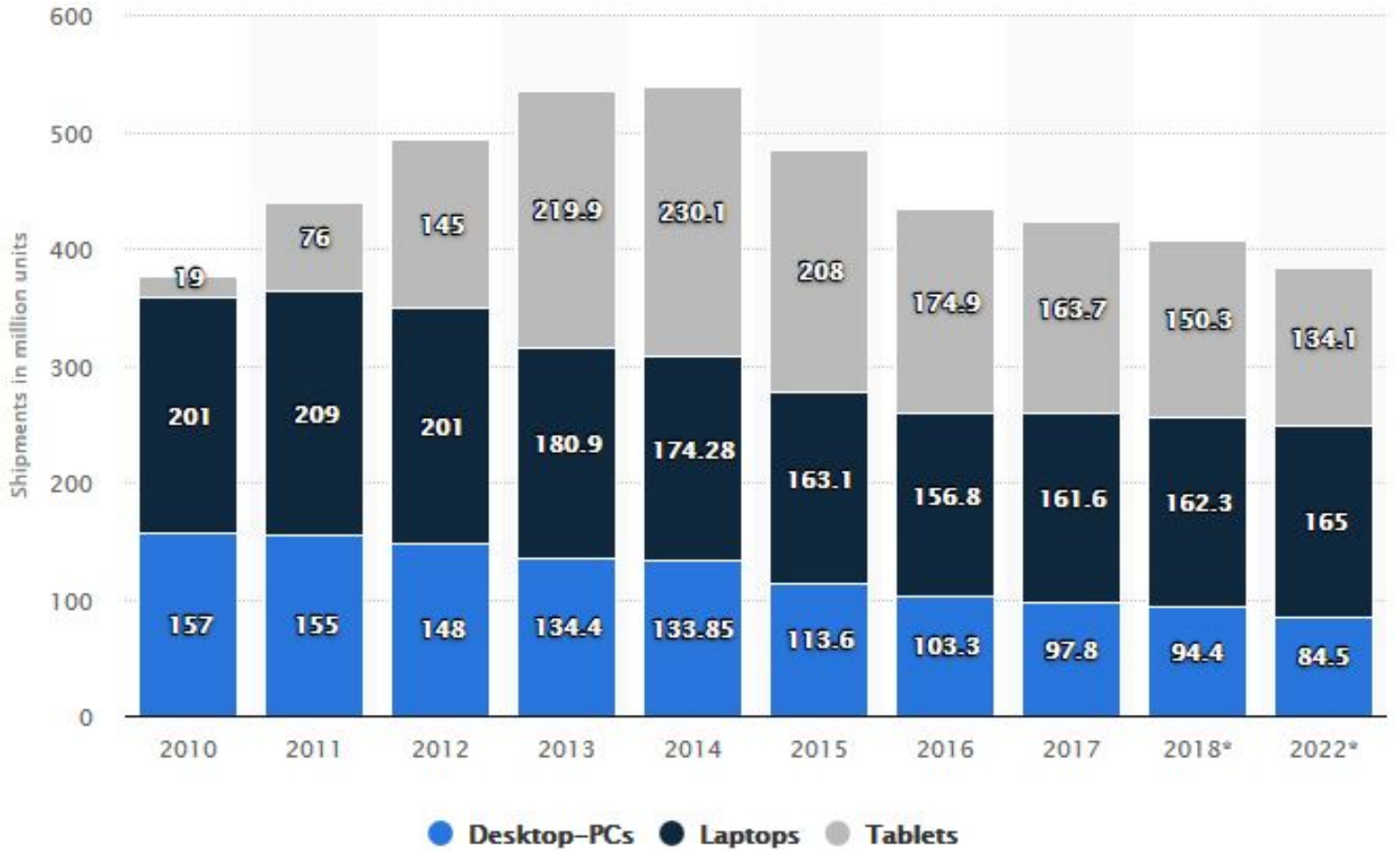
Trends in Desktop, Laptop, and Tablets Sales



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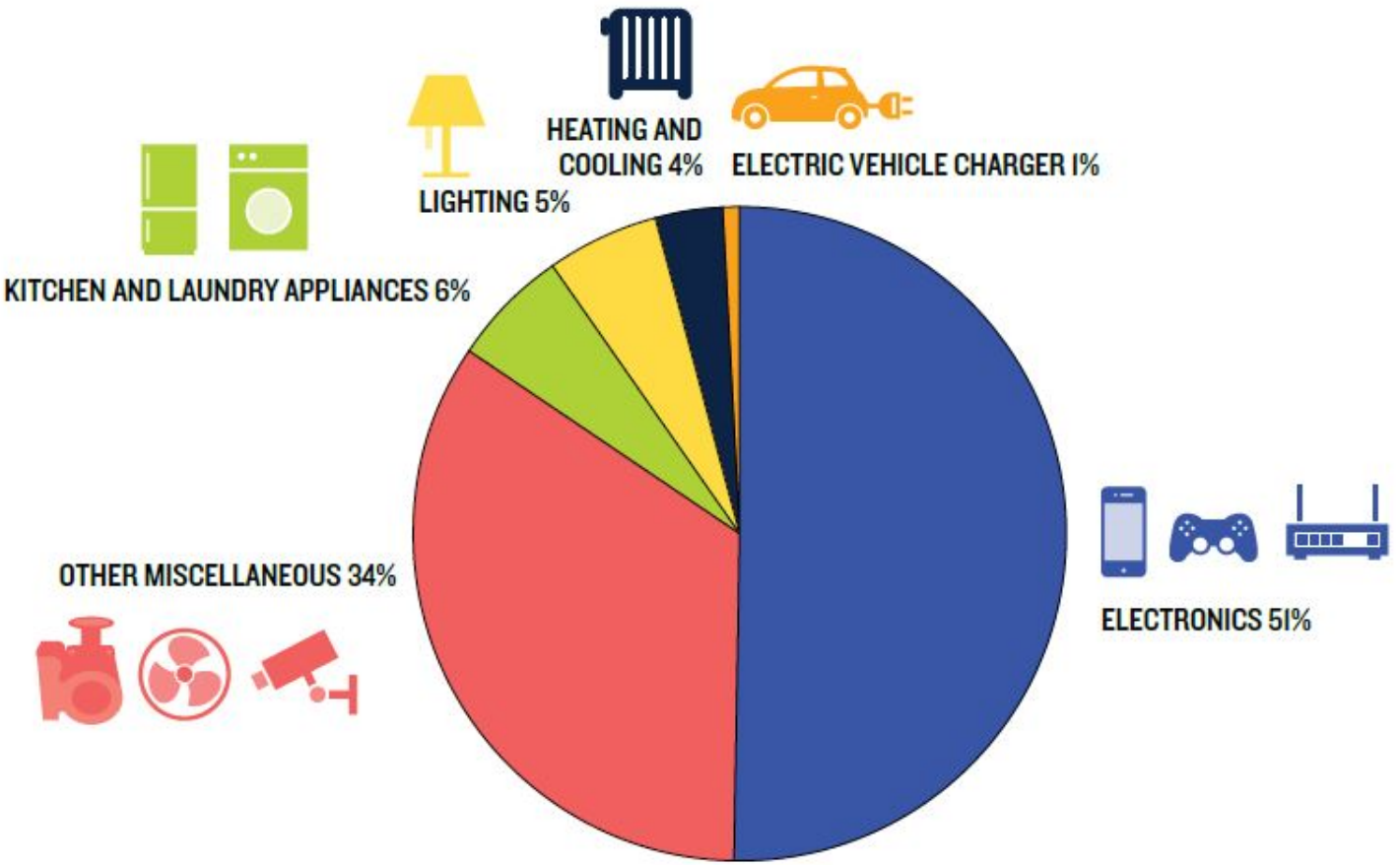
Additional Information: Worldwide; 2010 to 2018

Source: IDC

Always-On Plug Loads

Figure 10: Idle (Always-On) Loads by Major Product Category in 10 Homes Audited



Source: Delforge, Schmidt and Schmidt. 2015. NRDC. “Home Idle Load: Devices Wasting Huge Amounts of Electricity when Not in Active Use.”