

Extension Professionals and Sustainability Practices: Are We Walking Our Talk?

Abstract

Today more than ever, Extension is scrutinized and evaluated for its value and relevance to the public. This report summarizes a 2010 online survey conducted by members of the National Network for Sustainable Living Education (NNSLE) to assess the sustainability mindset of Extension employees. It assessed employee behaviors, motivations, and impediments—at work and at home—in five categories. Most notably, Extension employees are avid resource conservation practitioners who are strongly influenced by saving time and money. The findings provide a platform for sustainability education in Extension offices to promote transformative institutional and community change.

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Introduction

Extension must become the [sustainability] model for others to emulate. We have to walk our talk. Extension staff members will 'learn by doing' as we green our own lifestyles, offices, campuses and 4-H camps. As a result, we will radically shrink our ecological footprint and visually demonstrate the knowledge and practices we are teaching (et al., 2008).

Today more than ever, Extension is scrutinized and evaluated for its value and relevance to the public. To ensure continued relevance, in all settings from urban to rural, Extension educators must begin by critically evaluating our own sustainability practices, research, and outreach efforts. In 2010, members of the National Network for Sustainable Living Education (NNSLE)—an initiative of the Association of Natural Resource Extension Professionals (ANREP)—conducted an survey of Extension personnel across the U.S. about their habits at work and at home relating to environmental conservation and sustainability. They were asked about their behaviors, motivations, and impediments in several categories: Reduce, Reuse, Recycle; Energy Conservation; Food; Transportation; and Impediments to Implementation. This article presents a summary of 633 responses received from 37 states and Washington, DC.

Methodology

The online survey instrument was developed by members of NNSLE, pilot-tested, and revised. Most questions were multiple-choice with text boxes for additional responses; a few were open-ended. A copy of the survey is available online (<http://www.ces.ncsu.edu/wp-content/uploads/2014/09/Extension-Walk-Our-Talk-Survey.pdf>). Data analysis included grouping similar responses, such as "save money" and "reduce costs," to condense the number of response categories while accurately representing the range of responses. An expanded version of this article, with more

graphs and respondent comments, is available online

(http://collaborate.extension.org/mediawiki/files/3/38/Walking_Our_Talk_final_092713.pdf).

Survey links and a letter describing the project were sent to state contacts for distribution within their state. During the 12 months that the survey was open, two reminder emails were sent. It is unknown how many individuals received the email requests, so a response rate was not determined. The survey was mentioned several times during the monthly NNSLE conference calls, and call participants helped promote the survey within their states. Responses were received from 37 states; nine states had 10 or more respondents: North Carolina (171), Oregon (129), Maine (55), Virginia (52), Nevada (35), Arizona (32), Idaho (28), Wyoming (24), and Missouri (11).

Survey Results

Characteristics of Survey Respondents

The majority of the 633 respondents were female, lived in a rural area, worked off-campus, and held post-graduate degrees:

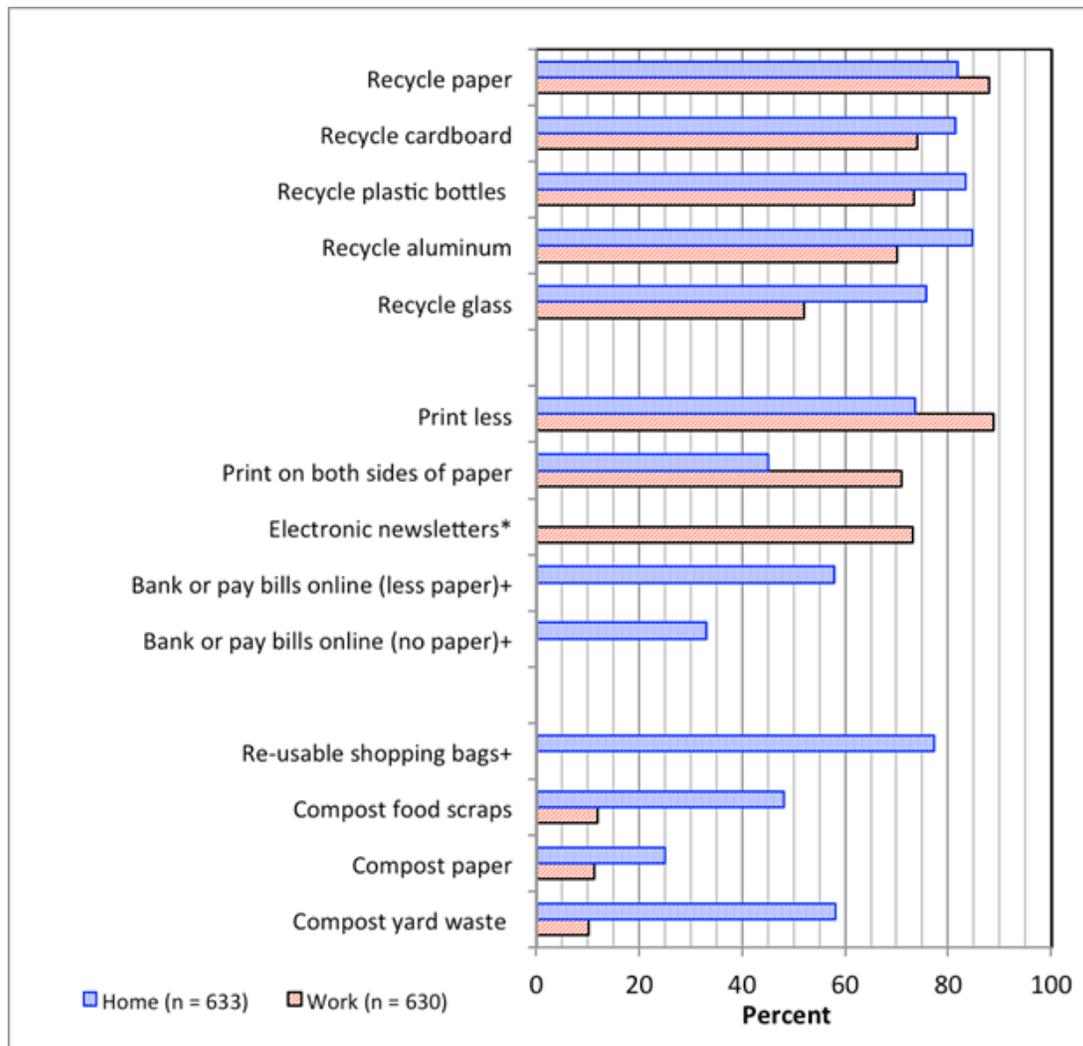
- County type: urban (30%), rural (57%), transitional (13%)
- Office location: on-campus (23%), off-campus (73%), other (4%)
- Gender: male (27%), female (73%)
- Years with Cooperative Extension:
 - 0 – 5: 35%
 - 6 – 10: 18%
 - 11 – 15: 16%
 - 16 – 20: 9%
 - 20+: 22%
- Age, in years:
 - 20 – 29: 11%
 - 30 – 39: 16%
 - 40 – 49: 23%
 - 50 – 59: 38%
 - 60 – 69: 12%
- Highest level of education:
 - High school or GED: 7%
 - 2-yr degree: 7%

- 4-yr degree: 18%
- Post-graduate degree: 63%
- Other: 4%

Reduce, Reuse, and Recycle

It is clear that recycling paper is a common practice for most Extension employees (Figure 1), both at home and at work (>80%), as are recycling cardboard, plastic bottles, and aluminum (all over 70%). Recycling glass is more common at home than at work (75% versus 52%). Composting food scraps (48%) and yard waste (58%) is fairly common at home, but infrequent at work (12% and 10% respectively), as is composting paper (25% at home; 11% at work).

Figure 1.
Reduce, Reuse, and Recycle Practices Implemented at Home and at Work



+ Only offered as a choice for "home"

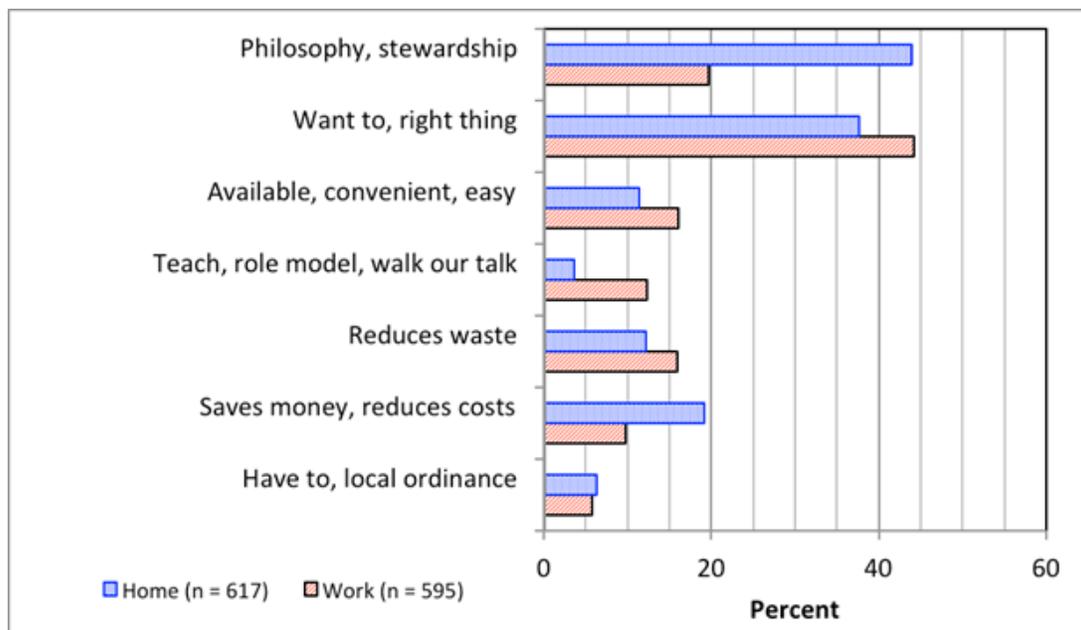
* Only offered as a choice for "work"

Comments about the three R's ranged from "If it cannot be recycled, composted or legally burned ... we don't buy it" to "I am not interested in doing any of these things."

Doing the "right thing" and "want to" were relatively strong motivators (>30%) at home and at work (Figure 2). Availability, convenience, and saving money were less frequent motivators. Only 12% of respondents stated that implementing sustainable practices at work was motivated by a desire to teach the practice, serve as a role model, or walk the talk; however, that may also be a reflection of how terms were grouped. Some individuals entered multiple terms, such as "want to," "personal philosophy," and "want to be role model to my grandchildren"; whereas others only used one set of terms, such as "want to" or "right thing." Conceivably, the "philosophy," "want to," and "teach" responses could be collapsed into one inclusive category. This approach was not used, due to concerns about context clarity associated with the responses. Category percentages are not additive, because some respondents used multiple terms.

Figure 2.

Motivations for Implementing Reduce, Reuse, or Recycle Practices at Home and at Work



When respondents were asked to indicate practices they would like to start doing, composting and recycling were most popular. Interestingly, 40% indicated that they would like to compost (at home and at work) but don't because of a lack of knowledge, time, space, or permission; 20% of the respondents indicated that they couldn't do any of the "3-R's" or didn't feel it would be useful. Other respondents identified these deterrents:

- Online bills & banking: concern about security, lack of paper trail, cost of Internet service
- Recycling: not available, lack of space or time, co-workers won't participate
- In general: apartment dweller, space, home owner association (HOA) rules

Numerous respondents indicated they were not interested in starting new practices either at work (20%) or at home (14%).

Energy Conservation

When asking about energy conservation, it was assumed that people would have more choice and flexibility at home than at work, so more choices were offered in the "at home" questions (Figure 3). At home, respondents had programmable thermostats (47%) at greater than the estimated national rate of one third of U.S. homes (Peffer,

Pritoni, Meier, Aragon, & Perry, 2011). How they used the programmable thermostats was not part of this survey, and 80% of respondents indicated that they adjust their thermostat when they leave. Respondents indicated that they either turn off their electronics (88%) or use power strips (42%).

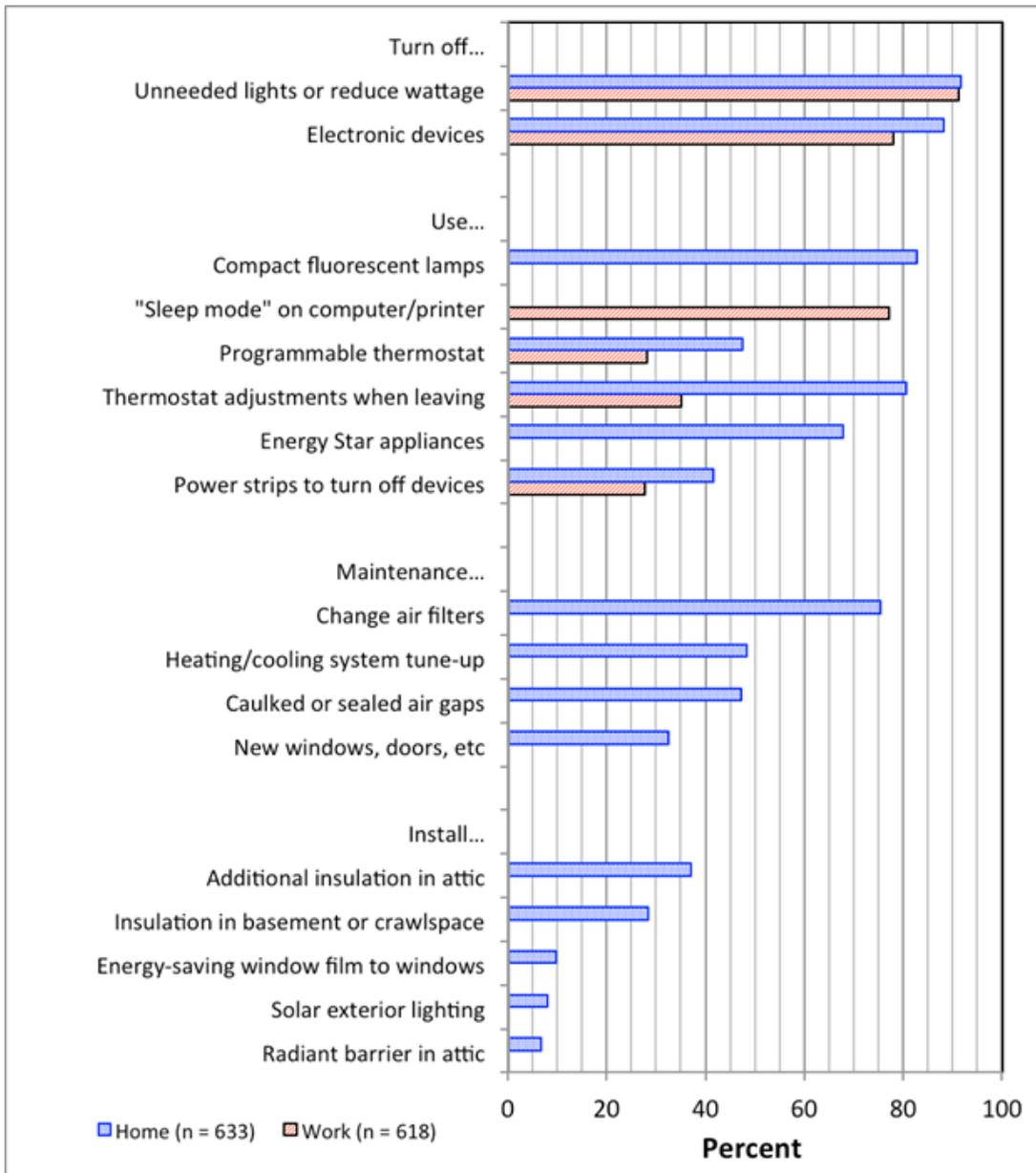
Weatherization practices, such as caulking air gaps, had been implemented by 47% of respondents, which was less than the 64% observed in the survey by Leiserowitz, Maibach, and Roser-Renouf (n.d.), and 10% had installed energy-saving window film. Adding attic insulation was listed by 37% of respondents, compared to 55% by Leiserowitz et al. (n.d.). Fewer than 5% of respondents had installed solar hot water, solar electricity, solar attic fans, geothermal heating, or landscaping to conserve energy.

At home and at work, turning off lights, reducing wattage, and using sleep mode were among the most frequent practices. More than 80% of respondents indicated that they replaced incandescent bulbs with compact florescent lamps (CFLs), which was greater than the 46% observed by Leiserowitz et al. (n.d.). The most popular "would like to do" practices at home were solar (all types, including photovoltaics (26%) and hot water (8%)), caulking and sealing gaps (19%), Energy Star appliances (11%), and installing new doors or windows (9%). Cost was the principal deterrent to implementing new practices at home, as was living in a rental. The study by Leiserowitz et al. (n.d.) found the greatest barriers to be cost, lack of knowledge, too much effort, and lack of time.

"Saving money" was the top motivator for conserving energy at home (81%), which is slightly less than the 90% observed by Leiserowitz et al. (n.d.). "Want to" was the top motivator at work (34%). Environmental concerns and saving energy were important motivators at home (24% and 22%, respectively) and at work (17% and 13%, respectively). Several respondents indicated that their landlords were not willing to invest in energy-conserving upgrades and retrofits. Roughly 8% wrote that they were either asked or required to conserve energy at work.

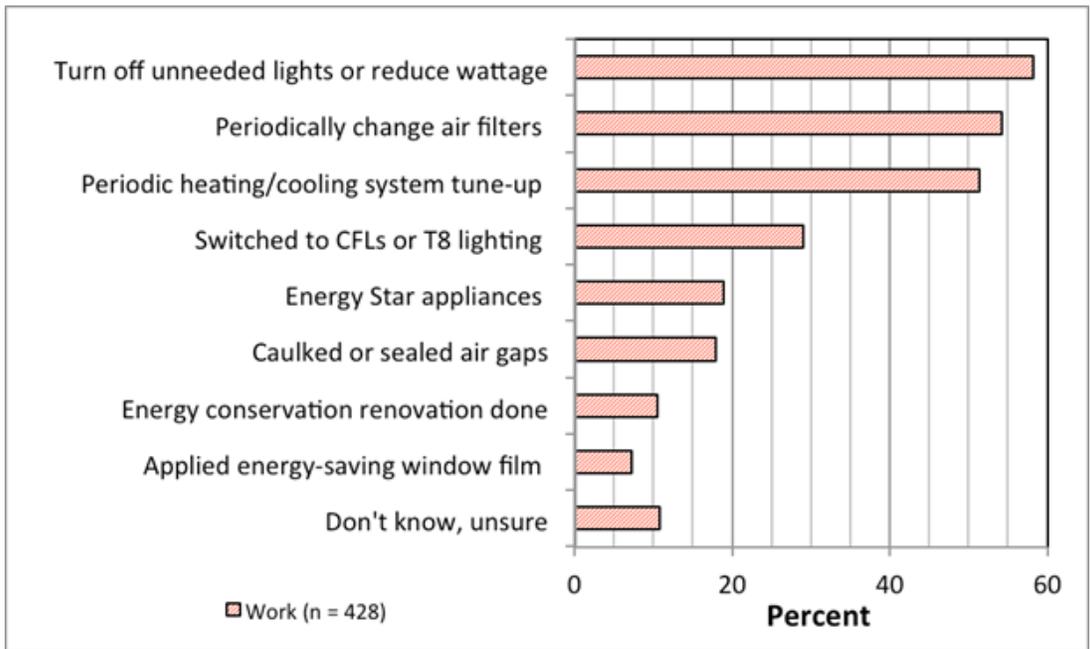
Figure 3.

Energy Conservation Practices Implemented at Home and at Work



It was also asked what others, such as custodial staff, were doing to conserve energy at work (Figure 4). The most common practices were related to lighting and HVAC systems. None indicated that solar water heaters, solar attic fans, or passive solar buildings were being used. Many respondents were not aware of practices being performed, because they occupied rented space. Caulking and sealing air gaps was listed by 12% of respondents; several commented about large drafty gaps that could be readily fixed, but were not. Age of the building, quality of construction, lack of control, and low priority were cited as reasons for not implementing energy conservation practices at work.

Figure 4.
Energy Conservation Practices Currently Implemented by Facilities Maintenance Staff

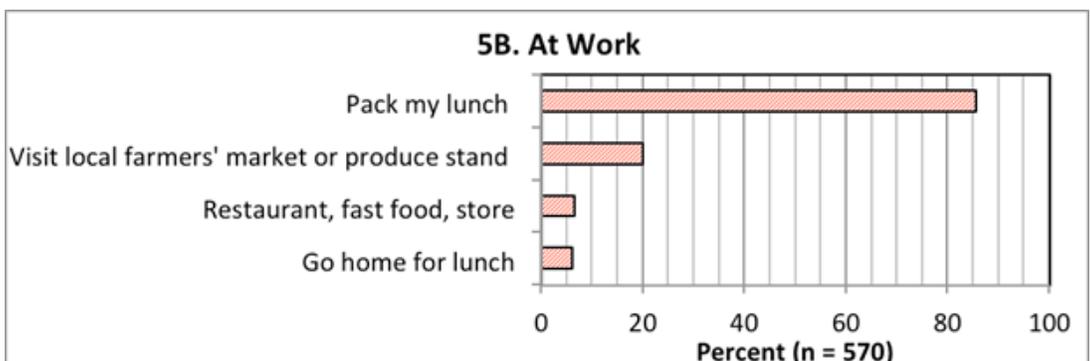
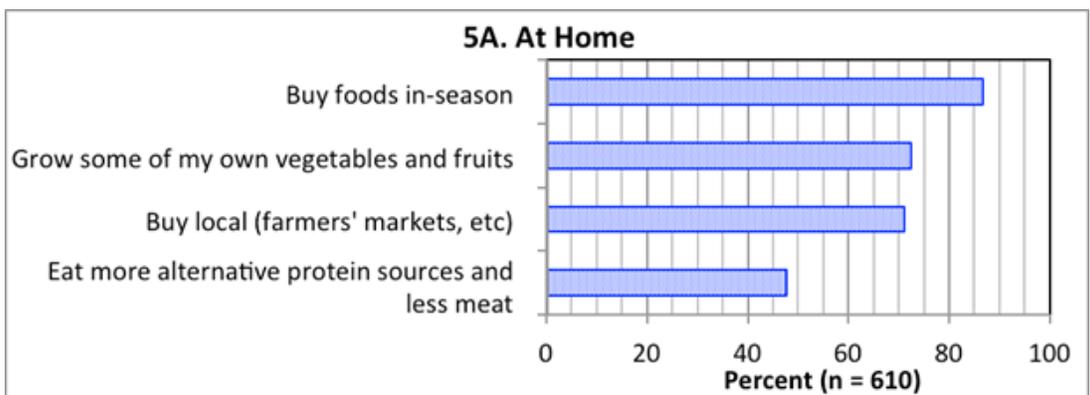


Food

More than 70% of respondents indicated that, at home, they buy in-season, locally produced foods, or grow their own (Figure 5A). A few respondents noted that they buy meat products and preserved foods from sources other than grocery stores. The choice to "eat more alternative protein sources and less meat" was both popular (48%) and contentious. Several emails and a telephone call were received asking how Extension could endorse this, considering Extension's strong ties to animal agriculture.

Figure 5.

Food Practices Implemented A. At Home and B. At Work



Food practices at work were focused on lunch, the meal most often eaten there (Figure 5B). Over 85% of respondents usually bring their lunch to work; about 6% regularly go home for lunch. When asked what motivated them to make these food choices, respondents indicated that at work, saving money, eating healthier, and saving time were the most frequent reasons. At home, health, quality of food, and supporting the local economy were most popular.

Questions regarding food choices prompted many comments about the need to be able to document the sustainability, cost, quality, health attributes of different options (e.g., local versus distant; meat versus alternatives), and Extension's role in teaching versus promoting. For example:

"Implied assumption is that LOCAL is most energy efficient ...I do not necessarily agree."

"I love fresh foods, taste so much better than those shipped to grocery stores."

"Economic misconceptions about these things actually being sustainable!"

"Save money by not eating as much meat."

"I eat meat because I am a livestock agent and do not think eating less meat is more sustainable."

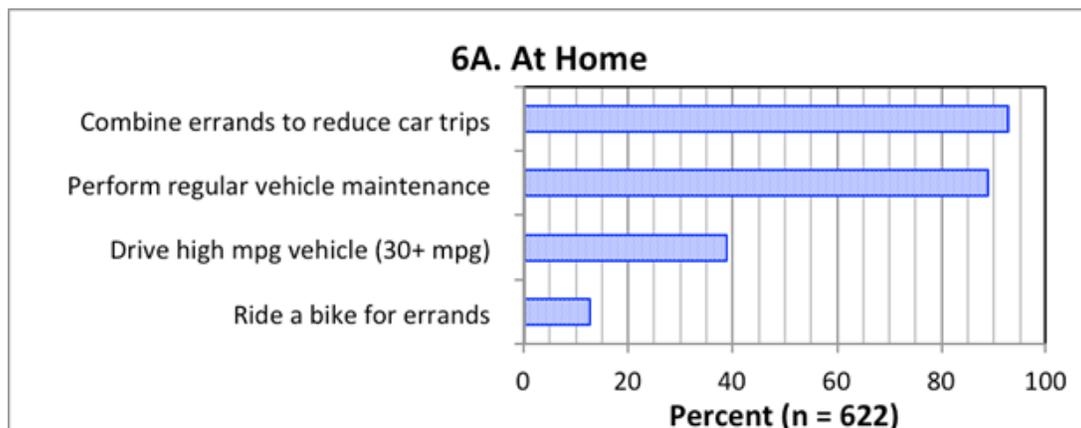
"I like local fresh fruits and reduce red meats and fats to control high blood pressure."

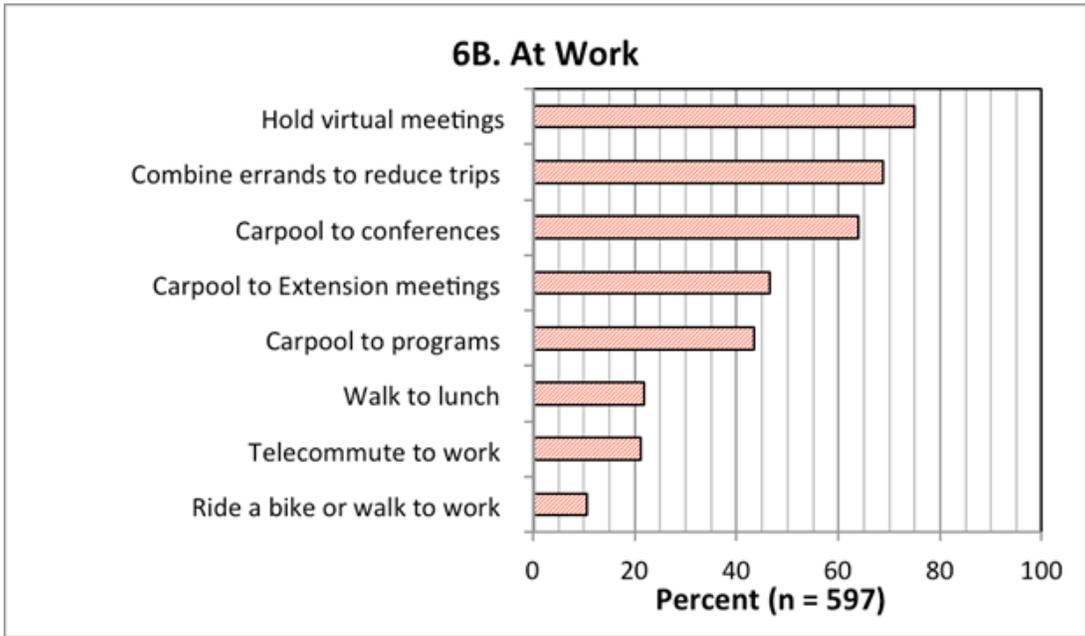
"Eating less meat is not a priority and is a bad message for Extension working with livestock."

Transportation

Combining errands and properly maintaining vehicle are practices implemented by most respondents (Figures 6A and 6B). Many respondents (39%) drove vehicles with high MPG ratings, which is comparable to the 21% who currently own a high MPG vehicle combined with the additional 20% who plan to get one as reported by Leiserowitz *et al.* (n.d.). Few (<2%) used alternative fuels or drove an electric vehicle. Nearly 13% indicated that they used a bike to do errands, while less than 4% walked to work or to do errands.

Figure 6.
Transportation Practices Implemented A. At Home and B. At Work

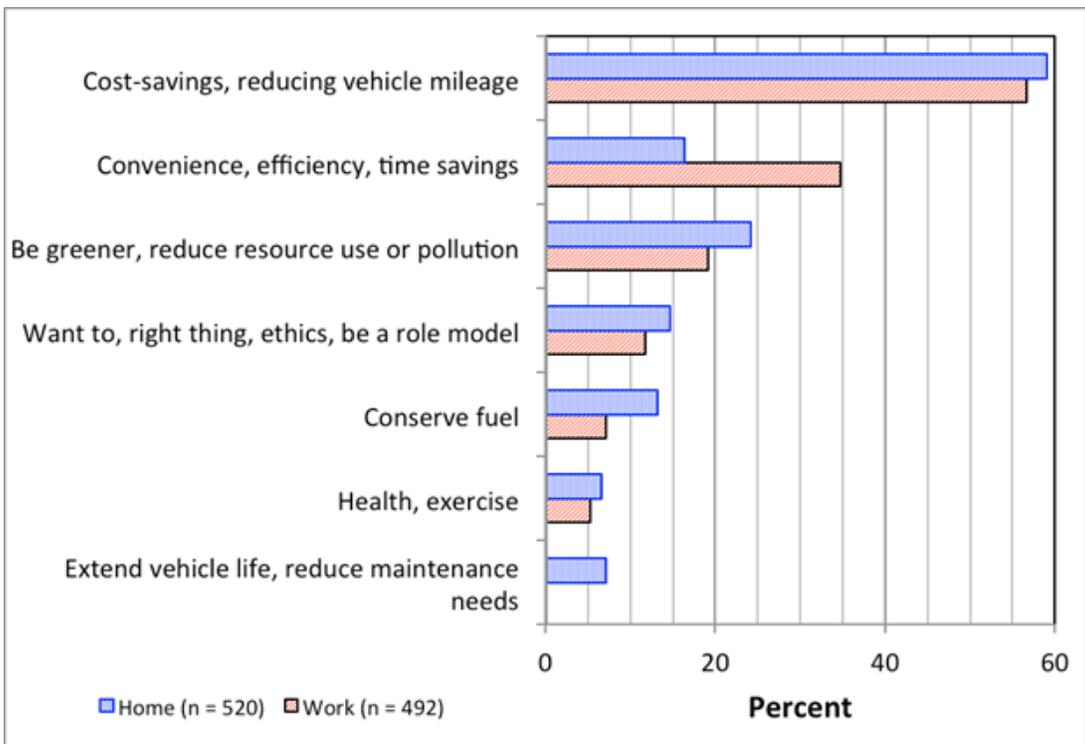




When at work, holding virtual meetings (e.g., conference calls, video chats) to save travel was very common (Figure 6B), followed closely by combining errands and carpooling. About 20% of respondents either walk to lunch or telecommute, 11% walk or bike to work, but only 3% use public transportation.

At both home and work, saving money and reducing miles driven were top motivators for implementing sustainable transportation practices (Figure 7). Convenience, efficiency, and saving time were also popular motivators, especially at work. Health and exercise (5%) were not strong motivators.

Figure 7.
Motivation to Implement More Sustainable Transportation Practices at Home and at Work

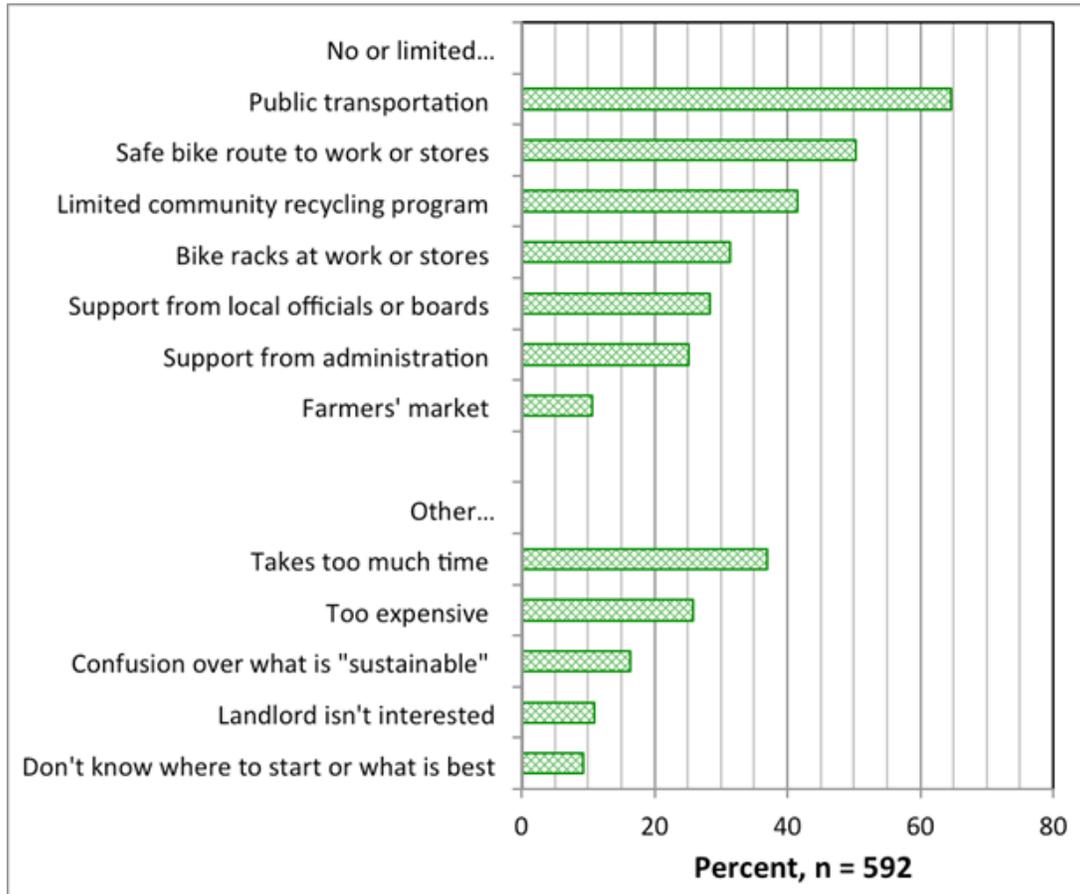


Impediments to Implementation

Respondents were asked to identify impediments to implementing sustainable practices in general, whether at home, at work, or in their communities. Lack of or limited infrastructure, community programs (recycling, bike paths, education), and upper-level support were common constraints (Figure 8). Roughly 18% of respondents indicated that they did not have enough information to make an informed choice.

Figure 8.

Impediments to Implementing Sustainable Practices at Home, at Work, and in the Community



Conclusions

It is evident that Extension employees have questions, concerns, and personal opinions regarding the implementation of sustainable practices. There is a need for more education and awareness within Extension regarding sustainability choices, a need that could be addressed through in-service training or initiatives such as NNSLE or the Climate Science Initiative (CSI) sponsored by ANREP. Clearly, Extension can be a leader in supporting change, especially within an institutional culture where leaders support and model sustainability.

Sustainable practices are more commonly implemented at home than at work, where they are supported by the structure of the home network. Final decisions rest with the household: convenience, monetary savings, and accessibility encourage the use of recycling, composting, alternative transportation, or homegrown produce. Although the national survey of 2,164 adult Americans by Leiserowitz et al. (n.d.) found saving money, conserving energy, moral rightness, and health benefits to be important motivating factors, few of their respondents selected social pressure as a motivator. There are circumstances that prevent households from making sustainable practices

commonplace, such as renting and home owner association (HOA) rules; however, even these households can make other changes, including using CFLs, programmable thermostats, and recycling (where available). Interdisciplinary programming in sustainable living is not a new concept for Extension (Simon-Brown, 2004); however, it has been slow to be embraced.

Within Extension there is a clear need for in-service and public education programs related to sustainability, sustainable practices, and why they are important. Currently available resources (Thomashow, 2009; Apel, McDonnell, Moynihan, Simon, & Simon-Brown, 2010; Apel, Elliott, Glenn, Prichard, Rashash, Simon, & Simon-Brown, 2011; Haney, Howser, Irwin, Siljeström, Stafford, Tilson, & Tsai, 2014) can provide the basis for these programs. From composting methods to the relative energy costs of food production, there are opportunities to inform Extension personnel, by providing the scientific evidence for increased efficiency, reduced costs, time savings, and other potential benefits.

Consistency in message across Extension subject matter areas is important, as is using documented, research-based facts on the benefits, costs, implementation issues, and other factors involved in selecting and adopting specific practices. Consistency is especially important as the lines between climate change and sustainable living continue to blur. People make choices every day. The ability to make informed choices is important to them (Pathak, Bernadt, & Umphlett, 2014).

The benefits of an Extension workforce that embraces sustainability will be multiplied in homes, communities, and local organizations, thereby improving the economic, social, and environmental sustainability—the triple bottom line—of these groups. This concept is also taking hold in the corporate world as "corporate social responsibility" (CSR). Employees need to be shown both why they should care about sustainability efforts and the impact of their efforts on the organization's costs (Smith, 2012). Hunt-Stevens (2014) reported that 89% of employees surveyed would practice new sustainability methods at home that they had learned at work.

Extension employees will be more effective at promoting the adoption of sustainable practices at home, at work, and in the community if they have the knowledge and tools that come from personal experience. Programs, such as the externship method described by Apel, Mostafa, Brandau, and Garfin (2013), are one way of combining students, Extension staff, and the community in sustainability projects. Other efforts, which use a family-based approach, are being explored (Santiago, Franz, Christoffel, Cooper, & Schmitt, 2013). Klein (2011) provided five key elements of effective CSR programs: "business-based social purpose," "clear theory of change," "quality and depth of information," "concentrated effort," and "partnering with experts." This methodology should resonate with Extension as we strive to embrace sustainability practices.

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