

Branching Out: A Content Analysis of Master Gardener Program Websites

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Introduction

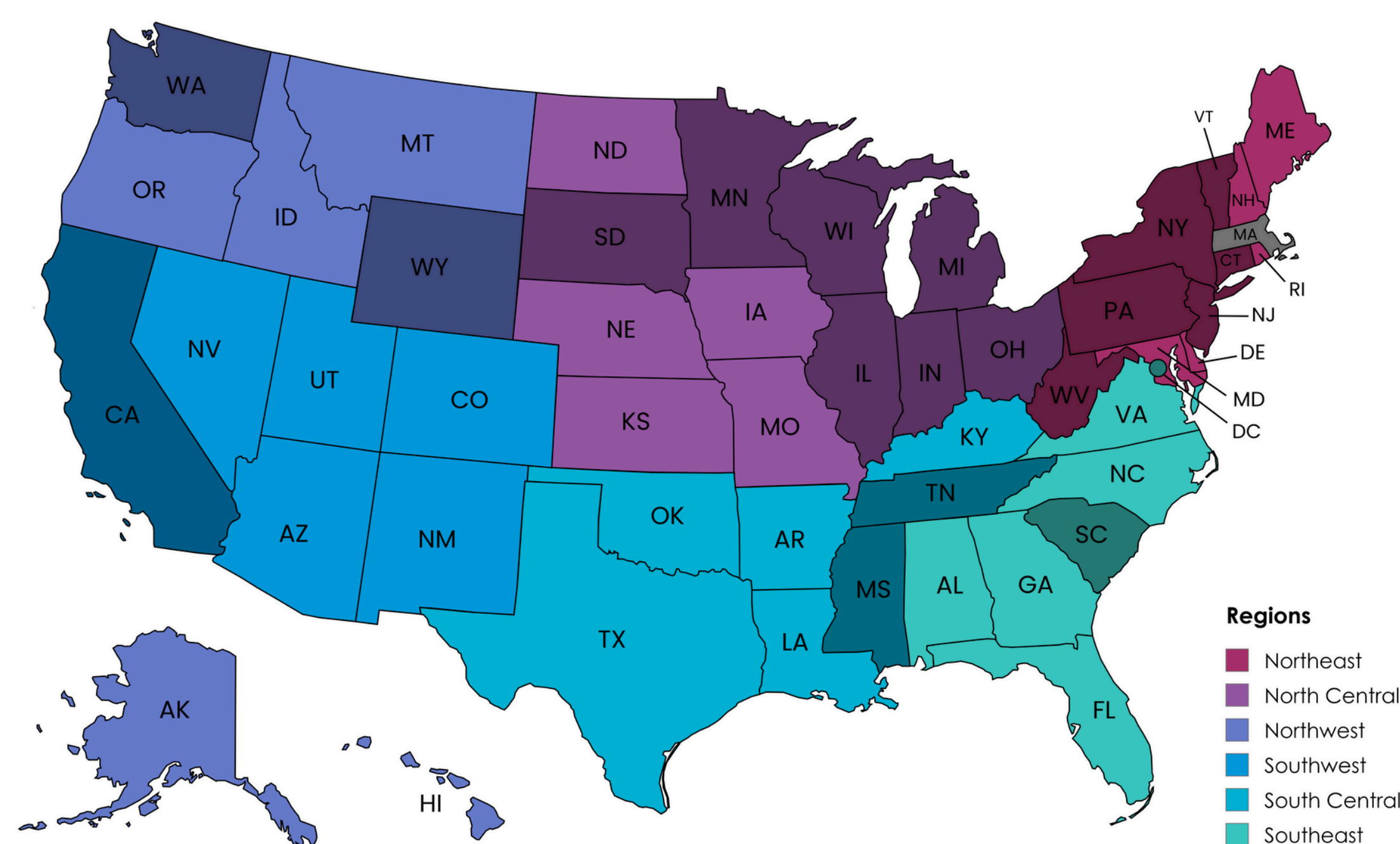
- Cooperative Extension Service (CES) represents part of the tripartite mission of land-grant institutions through outreach.
- The Extension Master Gardener (EMG) program organizes volunteers with a passion for gardening to educate the public with research-based horticultural knowledge.
 - Today, nearly all 50 states and the District of Columbia have a land-grant affiliated EMG program (Dorn et al., 2018).
 - At least 76,500 EMG volunteers contributed around 5.1 million hours in 2024** (Extension Master Gardener [EMG], n.d.-a).
- There is a need to keep updated and relevant information readily available for community volunteers to contribute to the land-grant mission and expand CES presence (Arnold et al., 2012).

Conceptual Framework

- Human-computer interaction (HCI)** (Katz et al., 1973) posits that interactions with computers, including websites, affect human behavior (Cabrera & Holt, 2020).
 - To evaluate the effectiveness of information availability
 - The impact of a user's perception and experience
- Excellence theory** (Ehling et al., 1992)
 - To evaluate EMG websites as high quality or low-quality communicators of information.
 - Communication leads to strategic relationships with the public (McLeod et al., 2018).

Methodology

- Quantitative content analysis (Creswell, 2014).
- 30 EMG websites sampled using stratified random sampling technique (Wrench et al., 2018).
- We determined a priori codes and created a codebook using HCI (Katz et al., 1973) and Excellence theories (Ehling et al., 1992)
 - After coder training, the two coders independently coded 12 variables using 10% of the sampled population Creswell and Poth (2023).
 - Krippendorff's alpha evaluated intercoder reliability (Hayes & Krippendorff, 2007).
- We recoded variables below .667 to improve reliability (Denzin & Lincoln, 2011; Riffe et al., 2014).



Purpose & Research Questions

- The purpose of this study was to examine EMG programs' website content and information available to the public.
- Research questions:
 - How accessible is information about the EMG program?
 - What information is available about EMG program requirements including education hours, service hours, and costs?
 - What information is available about EMG programs, volunteers, and organizational framework?

Findings

RQ 1



Only **20%** of CES websites included a clickable tab to its respective EMG website.



On average, starting from the CES state website, the click rate to the EMG state webpage took about **two to three** clicks.

RQ 2



EMG State Program Minimum Education Hours Requirements for EMG Volunteers

Education Hours	Mean	Median	Mode	Range (Min.-Max.)	SD
Initial	42.6	40	40	15-84	19.2
Continuing	22.7	10	10	3-21	16.4



EMG State Program Minimum Service Hours Requirements for EMG Volunteers

Service Hours	Mean	Median	Mode	Range (Min.-Max.)	SD
Initial	43.4	40	40	15-84	9.3
Continuing	22.7	20	20	3-21	22.8



83% (n=25) of EMG websites provided cost information for those interested in becoming an EMG volunteer given in USD (\$).

An opportunity to improve the Extension's website presence by expanding EMG program-specific mission, purpose, and values and communicate the impactful experiences of volunteers and their communities.

RQ 3



100%

state program overview and volunteers roles defined on all EMG websites as well as outcomes.



Defining Mission, Purpose, & Values of EMG Programs

Mission, Purpose, & Values	f	%
Mission Only	12	40
Purpose Only	3	10
Values Only	0	0
Mission & Purpose Only	4	13.3
Purpose & Values Only	0	0
Mission & Values Only	0	0
All Mission, Purpose, & Values	3	10
Information Not Available	8	26.7



80% (n=24) of the EMG websites included a designated section of the web design to have an open call for those interested in becoming an EMG volunteer.



Only **47%** (n=14) of EMG websites had volunteers' stories and testimonies readily available to read.

Discussion & Implications

- Our content analysis on EMG state websites highlighted that while each state program is different, they all shared a universal definition of the EMG program itself and the EMG volunteers.
- From our analysis, some EMG websites disclosed that the information on required hours provided is the baseline for the state program, but county EMG program coordinators could increase the expectation if needed.
- There is an opportunity to increase accessibility and availability by developing an introduction to EMG programs educational resource and disseminate requirements among each land-grant affiliated program by state and county levels.**



Abstract & References

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