



Predicting Attitudes toward Smart Meters from Connectness to Nature, Comfort with Technology, and Political Affiliation

Pat Aloise-Young, James McDonald & Amber Anthenien

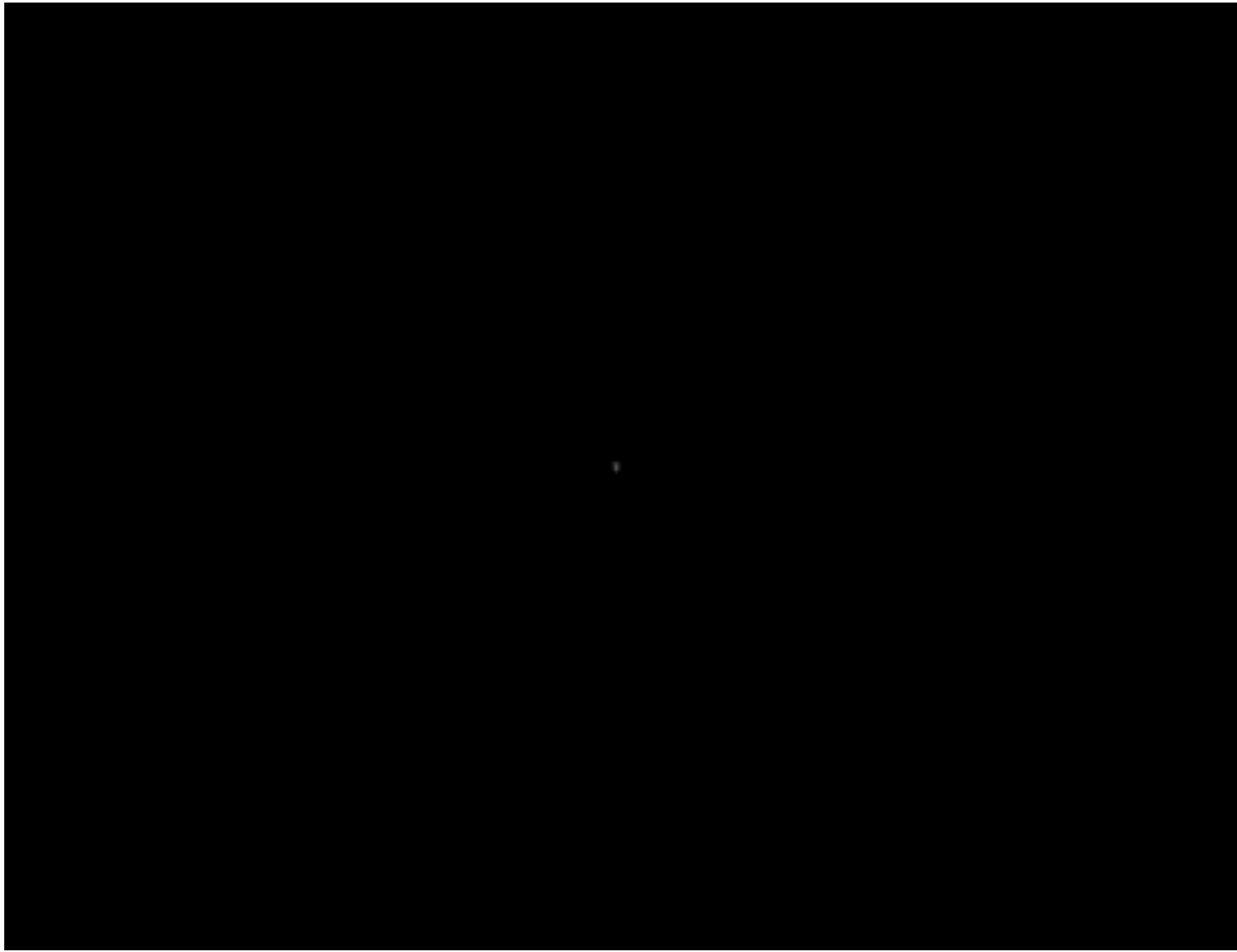
Colorado State University

*Department of
Psychology*

2009 ARRA funding

- **A**dvanced **M**etering
Infrastructure
- **AMI** = smart meters





Strategic deployment

Advanced meter installation, fcgov.com/advancedmeter

Advanced Meter Fort Collins.

Installation Begins.

Fort Collins Utilities is installing improved digital electric and water meters throughout the community. This project, which replaces current meters, will be completed in 2013.

From March to June 2012, about 6,000 residents and businesses received new meters. They reported the installation process was efficient and easy. Utilities is now following the same steps to install meters throughout the community.



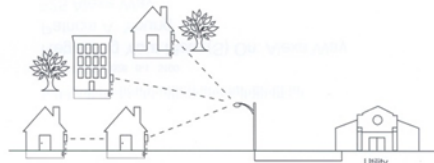
Meter Installation Area.

Your residence and/or business is scheduled for meter installation in the coming weeks. Corix, our installation partner, will be completing the installations. Approved installers will complete meter installations and will be identified with Corix and City logos on their uniforms, badges and vehicles.

Why the Change?

New meter technology will allow for faster transfer of electricity and water use information to our distribution and billing systems, providing more timely customer service. Electric and water crews will benefit from more information about outages and water main problems, improving safety and maintaining high system reliability. In the future, customers will be able to access information from the new meters via internet connections or other types of home area networks. Customers may review the information to manage their utility use and costs.

Meter Installation Route Progression.



Communication Mesh Network. Advanced meters will help to maintain high system reliability, provide more timely customer service and prepare Utilities and the community for emerging technologies.

Fall 2012

Data collection to assess predictors of smart meter acceptance

Data collection

- James McDonald
- Amber Anthenien
- John Ashburn
- Paige Birch
- Jessica Andrzejewski
- Heather Thurston
- Arianna Zabriskie
- Destinee Rugar
- Chelsey Green
- Jonathan Ruff
- Ariel Thibodeaux
- **301 face-to-face surveys**
- Historic homes fair
- Sustainable living fair
- Cub scout picnic
- Tanner gun show
- **111 online surveys**
- *Coloradoan* letter
- Flyers on cars
- Flyers on homes

Sample characteristics

- 18 to 85 years old - **mean of 43 years**
- 66% **homeowners**
- 52% male
- 34% **Democrats** 20% **Republicans**
22% Independents

- 38% reported **knowing nothing** about smart meters

Voter Registration by Party

State	D	R	D - R Margin
CO	1,149,329	1,156,572	R +7,243
FL	4,754,289	4,237,547	D +516,742
IA	682,475	669,647	D +12,828
NC	2,833,900	2,034,170	D +799,730
NH	224,915	258,714	R +33,799
NV	625,482	501,185	D +124,297
PA	4,214,523	3,114,868	D +1,099,655

The Top Ten Greenest States In U.S.

First Posted: 04/22/11 05:03 PM ET | Updated: 06/22/11 06:12 AM ET

Fort Collins ranks fifth in Digital Cities Survey

- Pro-Environmental attitudes
- Comfort with technology
- Political affiliation

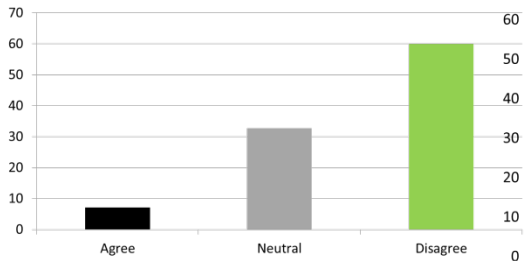
Smart Meter Attitudes Scale

1 = Strongly disagree (NO!), 3 = Neutral (I'm not sure), 5 = Strongly agree (YES!)

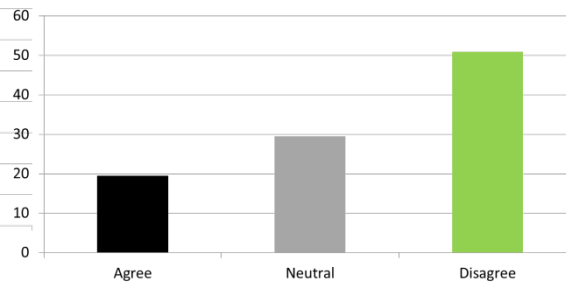
- Using a Smart Meter will help me to be more **environmentally** responsible.
- I am worried about the effect a Smart Meter may have on my **health**. (reverse coded)
- The Smart Meter will help me use energy more **efficiently**.
- I am worried about the **privacy** of my home electricity use information. (reverse coded)
- Overall, I expect a Smart Meter will be **useful** in my home.
- I am worried about **viruses** or hackers controlling my power supply. (reverse coded)
- I would be interested in **purchasing** hardware/software that would help me get more information from my Smart Meter.

Smart Meter Attitudes

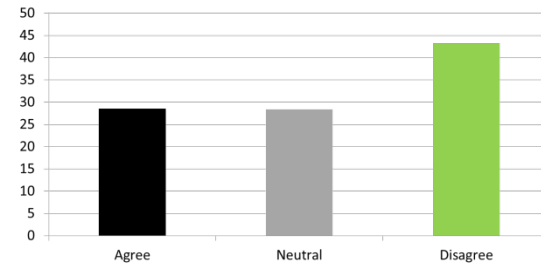
Health



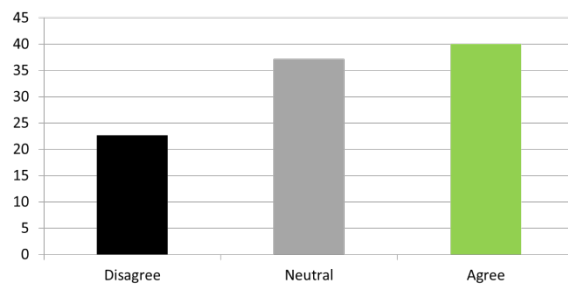
Virus



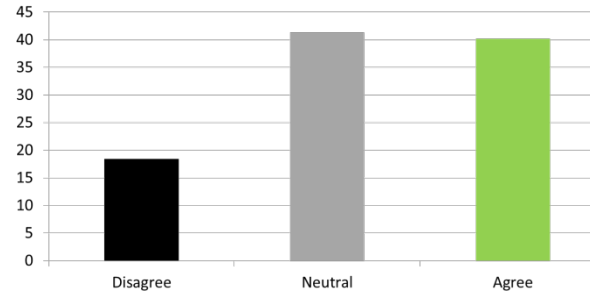
Privacy



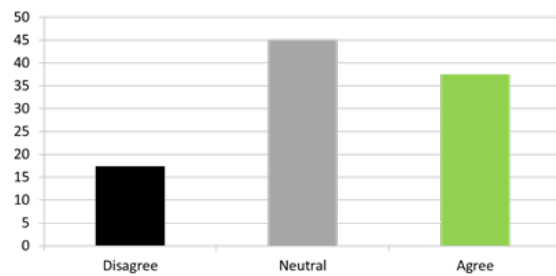
Environment



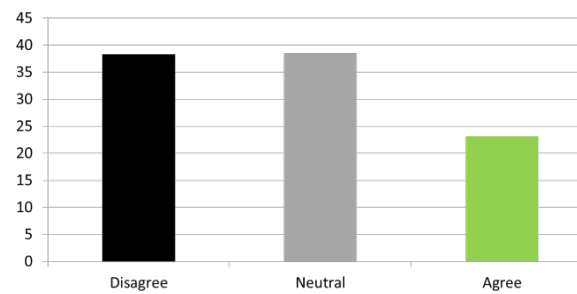
Efficient



Useful



Purchase

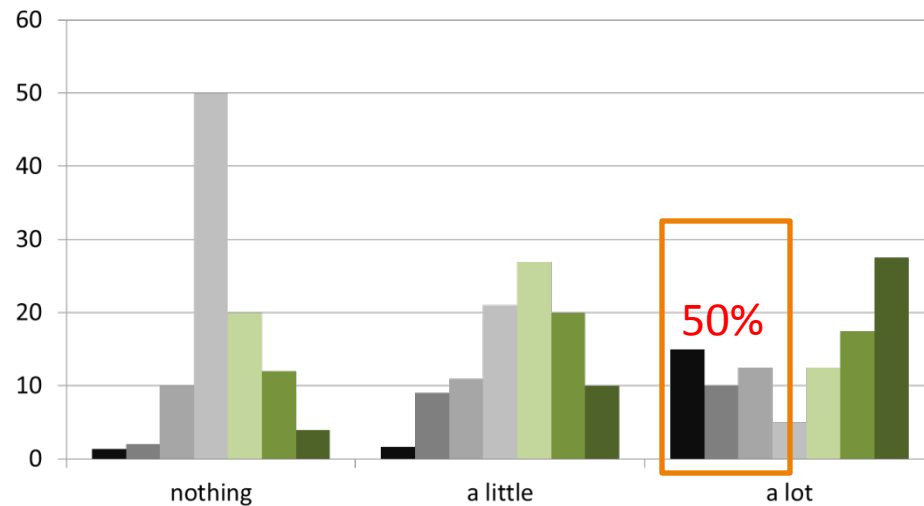


Smart Meter Attitudes predicted by

- Pro-environmental attitudes
- Comfort with technology
- Democratic affiliation

— .29, -.31

- Knowledge = polarization



- **Implications**
 - Messaging
 - Deployment strategy

Thank you!

Pat Aloise-Young

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www.carosconsulting.com