INL/EXP-22-68418-Revision-0

Does a visit to EBR-I improve perceptions of nuclear power?

August 2022

Sam E Ellsworth

Changing the World's Energy Future

INL is a U.S. Department of Energy National Laboratory operated by Battelle Energy Alliance, LLC

INL/EXP-22-68418-Revision-0

Does a visit to EBR-I improve perceptions of nuclear power?

Sam E Ellsworth

August 2022

Idaho National Laboratory
Idaho Falls, Idaho 83415

http://www.inl.gov

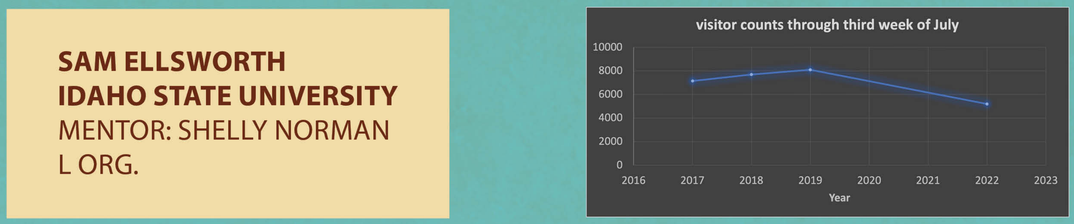
Prepared for the
U.S. Department of Energy
Under DOE Idaho Operations Office
Contract DE-AC07-05ID14517

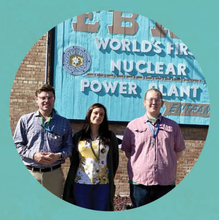
RESEARCH QUESTION:

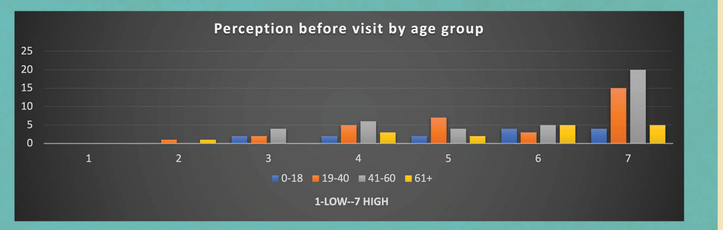
Does a visit to EBR-I improve perceptions of nuclear power?

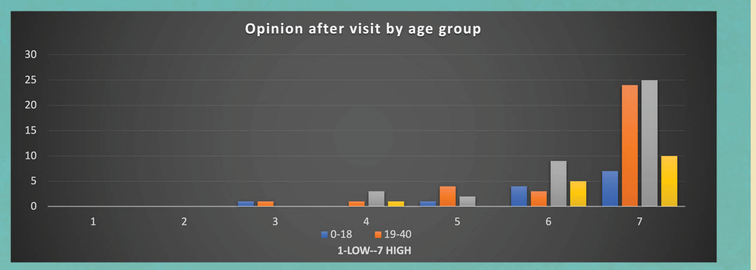
The only data collected at the Experimental Breeder Reactor-I since 1975 has been visitor counts and self-selected guest log entries. I wanted to know if the museum improves perceptions of nuclear power and use demographic data to refine the visitor experience and improve outreach to bring in more guests.

SAM ELLSWORTH
IDAHO STATE UNIVERSITY
MENTOR: SHELLY NORMAN
L ORG.









EBR-I OVERVIEW

- On Dec. 20, 1951, EBR-I became the first power plant to produce electricity using atomic energy.
- EBR-I was the first reactor built in Idaho at the National Reactor Testing Station (forerunner to today's INL)
- In 1953, testing at EBR-I confirmed that a reactor could create (or breed) more fuel than it consumes.
- This pioneering reactor operated for 12 years before being shut down for the last time in December 1963.
- President Lyndon Johnson dedicated EBR-I as a National Historic Landmark in 1966. ("Experimental Breeder Reactor-I (EBR-I) - INL")
- The museum opened in 1975 - averaging 10,000 guests per year.

METHODS

- Printed survey administered after visit of EBR-1
- Data gathered over course of one week

DISCUSSION

- This survey is a trial for future demographic collection and research.
- Demographic data could be used to refine the visitor experience and improve outreach to bring in more guests.

LIMITATIONS

- More data is needed to produce scientifically significant results

RESULTS

Visitor numbers down 32% from a three year average

Possible reasons:

1. COVID-19
   - closed for the past two years
   - changed the way people recreate
2. Yellowstone National Park closing
   - Most people who stop by spontaneously are traveling to and from local landmarks such as Yellowstone, Craters of the Moon National Monument
3. The rise of gas prices, cost of goods and services, and other economical reasons

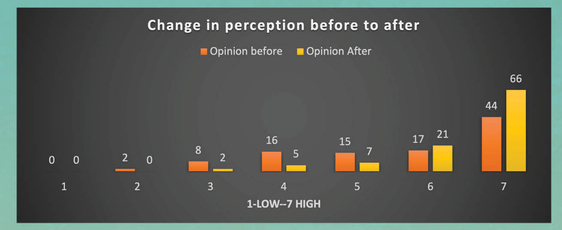
Average perception increased by 0.7 points after visit to EBR-I -- 7-point scale used

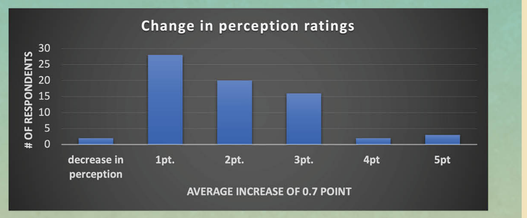
Age groups 18 to 40 and 61 and older had the same increase in perception—0.9 increase - 7-point scale used

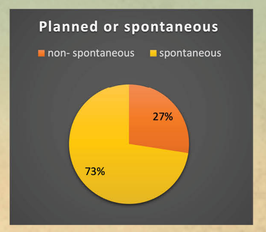
The vast majority of guests

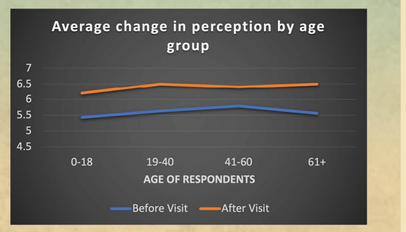
74% of visitors stopped opportunistically

90% had a somewhat favorable view of nuclear power coming into the museum









Idaho National Laboratory