



Technology-based Visitor Use Counts and Reporting: KOWA Pilot Test

June 8, 2018

Contact: Maggie Daniels, PhD
George Mason University
mdaniels@gmu.edu

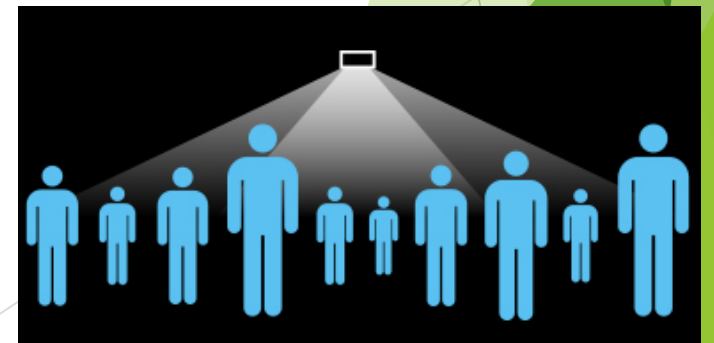
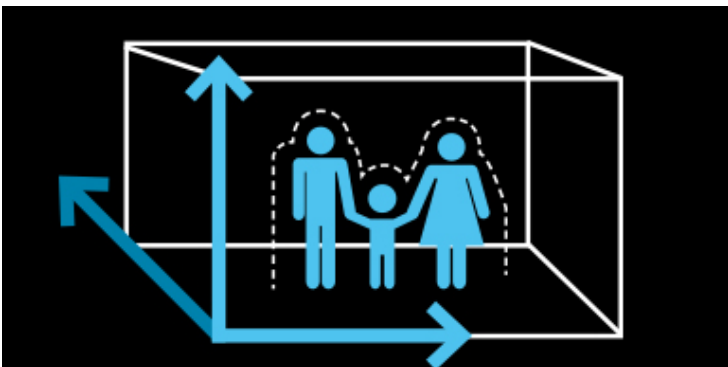
Study Purpose, Objectives and Partners

- ▶ **PURPOSE:** To install and analyze the effectiveness of a technology-based visitor counting system.
- ▶ **OBJECTIVES:**
 - Improve data accuracy by allowing for 24-hour visitor counts. Current methods involve hand counts in 15-minute increments, up to six times a day.
 - Free up the time of NPS personnel to concentrate on their areas of expertise.
- ▶ **PARTNERS:**
 - **NPS NAMA:** Project Co-Coordination, Information Technology, Security, Facility Management, Interpretation, Resource Stewardship
 - **George Mason University:** Project Co-Coordination, Technology Liaison, Data Analysis, Reporting
 - **Axper:** People Counting & Tracking Solutions



Technology Selection and Approval

- ▶ **Axper**: 3D people counting technology
 - ▶ Counts entrances and exits separately to avoid double counting
 - ▶ Guaranteed accuracy in high traffic environments
 - ▶ High-level privacy (PIA): No personal information captured



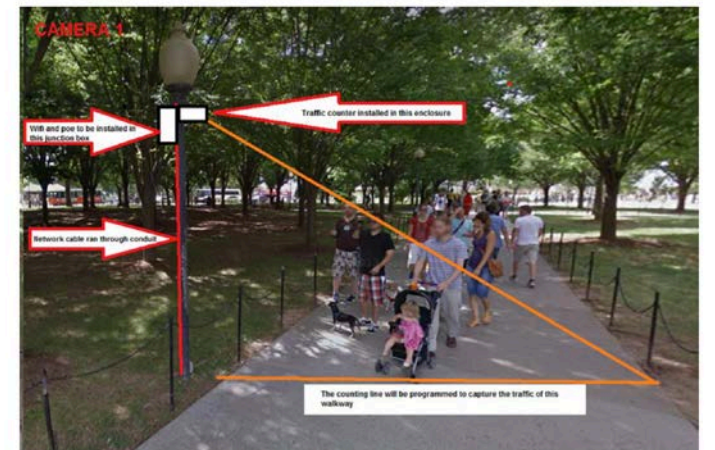
Pilot Site and Preparation: Korean War Veterans Memorial (KOWA)

▶ PILOT SITE: KOWA

- ▶ Controlled access points
- ▶ Consistent visitor flows

▶ PREPARATION

- ▶ Pole height requirements and stability checks
- ▶ GFCI receptacle installation
- ▶ Hotspot creation (Cradlepoint AER1600 routers, Verizon SIM cards and data plans)



Installation and Reporting

▶ INSTALLATION

- ▶ 3D counters in weatherproofed housing
- ▶ Routers in weatherproofed housing
- ▶ Extension cords to GFCI receptacles
- ▶ Mounting on light poles
- ▶ Validation

▶ REPORTING: What we have learned

- ▶ Pilot test: 5/24/18 - 8/31/18
- ▶ Hand counts versus 3D counts
- ▶ Lighting considerations

