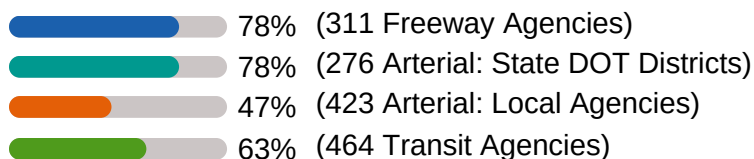# 2023 ITS Deployment Tracking Survey

Freeway, arterial, and transit management agencies nationwide were surveyed about their Intelligent Transportation Systems (ITS) deployment. For the first time, the 2023 ITS Deployment Tracking Survey measures ITS deployment in smaller urban and rural areas in addition to large metropolitan areas.[1]

**Overall Survey Response Rate**

78% (311 Freeway Agencies)
78% (276 Arterial: State DOT Districts)
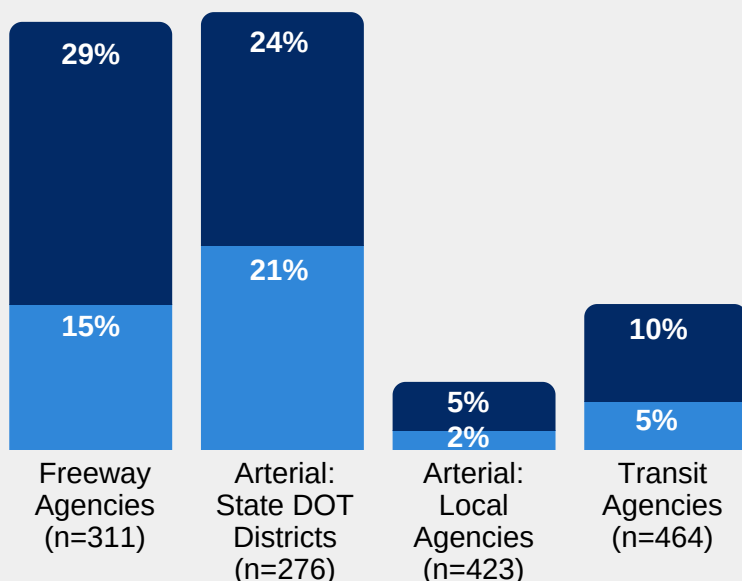47% (423 Arterial: Local Agencies)
63% (464 Transit Agencies)

# Connected & Automated Vehicle Technologies:
## Freeway, Arterial, and Transit Management Agencies

The 2023 ITS Deployment Tracking Survey asked all agencies about their deployment of connected vehicle (CV) and automated vehicle (AV) technologies.[2]

## Developing, Testing, or Deploying CV Technologies

● Currently developing, testing or deploying CV
● Planning for CV



| Agency | Planning for CV | Currently developing, testing or deploying CV |
|---|---|---|
| Freeway Agencies (n=311) | 29% | 15% |
| Arterial: State DOT Districts (n=276) | 24% | 21% |
| Arterial: Local Agencies (n=423) | 5% | 2% |
| Transit Agencies (n=464) | 10% | 5% |

**Freeway agencies** and **State DOT districts managing arterials** reported similar levels of engagement with CV technologies.
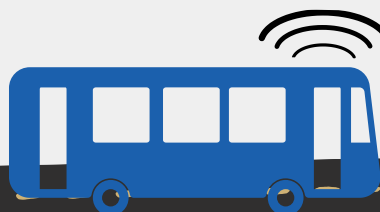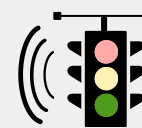
About one fifth of State DOT districts managing arterials (21%) and nearly as many freeway agencies (15%) are **currently developing, testing, or deploying CV**.

In addition, 24% of State DOT districts managing arterials and 29% of freeway agencies are **planning for CV**.

**Transit agencies** and **local agencies** are significantly less likely to be either developing, testing, or deploying CV or planning for CV.
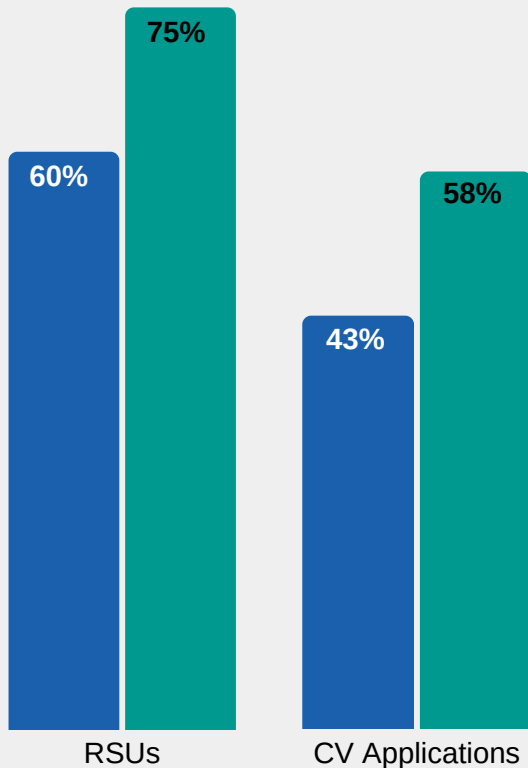
[1] Click here for more about the change in survey methodology.

[2] All data for local agencies (arterial) and transit agencies are weighted. Click here to see the reports for more details.

# Deployment of RSUs and CV Applications

**Legend:**
- Freeway Agencies Deploying CV (n=47)
- Arterial: State DOT Districts Deploying CV (n=57)

**Bar chart:**
- RSUs: 60% / 75%
- CV Applications: 43% / 58%

Among **freeway agencies** and **State DOT districts managing arterials** that are developing, testing, or deploying CV technologies, large majorities reported deploying r**oadside units (RSUs)** in support of their CV and/or AV technologies, while fewer are currently developing, testing, or deploying **CV applications**.

The top 3 CV applications reported by each agency type in 2023 are as follows:

### Top 3 CV Applications on Freeways
Agency data applications (8 agencies)
Road weather warnings (8 agencies)
Queue warnings (7 agencies)

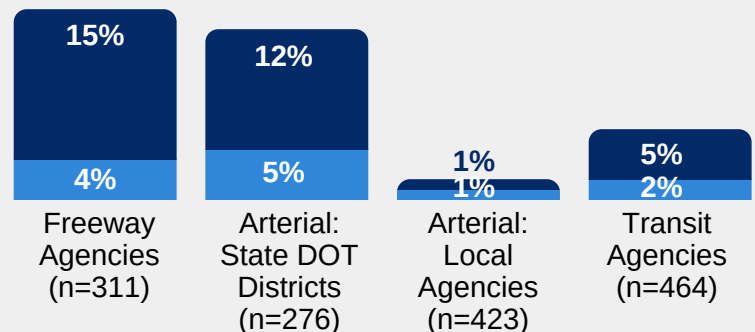### Top 3 CV Applications on Arterials by State DOT Districts
Emergency signal preemption (21 districts)
Transit signal priority (16 districts)
Pedestrian in signalized crosswalk warnings (13 districts)

## Leading or Supporting AV Testing in the Last 5 Years

**Freeway agencies** and **State DOT districts managing arterials** are more active than either **local arterial agencies** or **transit agencies** leading or supporting AV testing or deployment in the last five years.

In the last five years, 4% of freeway agencies are **leading** and 15% are **supporting** AV testing or deployment. Similarly, for State DOT districts managing arterials, 5% are **leading**, and 12% are **supporting** AV testing or deployment.

**Legend:**
- Leading AV testing/deployment
- Supporting AV testing/deployment

**Bar chart:**
- Freeway Agencies (n=311): 15% / 4%
- Arterial: State DOT Districts (n=276): 12% / 5%
- Arterial: Local Agencies (n=423): 1% / 1%
- Transit Agencies (n=464): 5% / 2%

*Note: Respondents could select both **leading** and **supporting,** if applicable.*

**Reports, data, and more available now!**
**Go to:** www.itskrs.its.dot.gov/deployment/2023DTS.