



SOUTHERN CALIFORNIA  
ASSOCIATION OF GOVERNMENTS  
818 West 7th Street, 12th Floor  
Los Angeles, CA 90017

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## MEETING No. 1

# OPEN DATA/BIG DATA – SMART AND CONNECTED SCAG REGION COMMITTEE

### REGIONAL COUNCIL OFFICERS

President  
Margaret E. Finlay, Duarte

First Vice President  
Alan D. Wapner, Ontario

Second Vice President  
Bill Jahn, Big Bear Lake

Immediate Past President  
Michele Martinez, Santa Ana

### COMMITTEE CHAIRS

Executive/Administration  
Margaret E. Finlay, Duarte

Community, Economic &  
Human Development  
Rex Richardson, Long Beach

Energy & Environment  
Carmen Ramirez, Oxnard

Transportation  
Curt Hagman, San Bernardino County

***Tuesday, June 13, 2017***  
***9:00 a.m. – 10:30 a.m.***

**SCAG Main Office**  
**818 W. 7th Street, 12th Floor**  
**Policy Committee Room A**  
**Los Angeles, CA 90017**  
**(213) 236-1800**

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Tess Rey-Chaput at (213) 236-1908 or via email at [REY@scag.ca.gov](mailto:REY@scag.ca.gov).

Agendas for the Open Data / Big Data – Smart and Connected SCAG Region Committee are also available at:

<http://www.scag.ca.gov/committees/Pages/default.aspx>

SCAG, in accordance with the Americans with Disabilities Act (ADA), will accommodate persons who require a modification of accommodation in order to participate in this meeting. SCAG is also committed to helping people with limited proficiency in the English language access the agency's essential public information and services. You can request such assistance by calling (213) 236-1908. We request at least 72 hours notice to provide reasonable accommodations and will make every effort to arrange for assistance as soon as possible.

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**Open Data / Big Data – Smart and Connected SCAG Region Committee**  
*Members*

1. Hon. Michele Martinez, City of Santa Ana (**Committee Chair**)
2. Hon. Margaret Finlay, City of Duarte
3. Supervisor Curt Hagman, San Bernardino County
4. Hon. Cheryl Viegas-Walker, City of El Centro
5. Hon. Jeffrey Giba, City of Moreno Valley
6. Hon. Pam O'Connor, City of Santa Monica
7. Hon. Margaret Clark, City of Rosemead
8. Hon. Rex Richardson, City of Long Beach
9. Hon. Richard Montgomery, City of Manhattan Beach
10. Marlon Boarnet, USC
11. Jack Ciulla, City of Santa Ana
12. Lea Deesing, City of Riverside
13. Crystal Dorn, Esri
14. Mark Greninger, Los Angeles County
15. Dr. Do Kim, Cal Poly Pomona
16. Scott Larson, Microsoft
17. Juan Matute, UCLA
18. Mojgan Sami, UC Irvine
19. Frank Ury, City of Mission Viejo

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**OPEN DATA/BIG DATA – SMART AND CONNECTED SCAG REGION  
COMMITTEE  
AGENDA – MEETING NO. 1  
TUESDAY, JUNE 13, 2017**

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**CALL TO ORDER**

*(The Honorable Michele Martinez, Chair)*

**PUBLIC COMMENT PERIOD** – Members of the public desiring to speak on items on the agenda, or items not on the agenda, but within the purview of the Committee, must fill out and present a speaker’s card to the Assistant prior to speaking. Comments will be limited to three (3) minutes. The Chair may limit the total time for all comments to twenty (20) minutes.

**DISCUSSION ITEMS**

- |   |   |
|---|---|
| 1. <u>Welcome</u><br><i>(The Honorable Margaret E. Finlay, SCAG President)</i>  | <b>Discussion</b>   |
| 2. <u>Introductions</u><br><i>(The Honorable Michele Martinez, Chair)</i>   | <b>Discussion</b>   |
| 3. <u>Review Committee Goals</u><br><i>(The Honorable Michele Martinez, Chair)</i>  | <b>Presentation</b> (Materials will be provided at the meeting) |
| 4. <u>Review Committee Outlook</u><br><i>(Rye Baerg, SCAG Staff)</i>  | <b>Attachment</b>   |
| 5. <u>Defining Open Data, Big Data, and Smart Cities</u><br><i>(Rye Baerg, SCAG Staff; Lea Deesing, City of Riverside Chief Innovation Officer; Mark Greninger, LA County Chief Data; Scott Larson, Microsoft; Officer; Crystal Dorn, ESRI; Mike Jones, SCAG Staff)</i> | <b>Presentation</b> (Materials will be provided at the meeting) |
| 6. <u>Preview Regional Data Survey</u><br><i>(Kimberly Clark, SCAG Staff)</i>   | <b>Presentation</b> (Materials will be provided at the meeting) |
| 7. <u>Future Meeting Schedule</u><br><i>(The Honorable Michele Martinez, Chair)</i>   | <b>Discussion</b>   |

**FUTURE AGENDA ITEM/S**

**ANNOUNCEMENT/S**

**ADJOURNMENT**

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# **Open Data/Big Data—Smart and Connected SCAG Region Committee (Meeting #1)**

6-13-2017

# Committee Goals



# Committee Goals

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- Review SCAG's current data initiatives and tools within the context of big and open data
- Determine an appropriate role for SCAG in addressing the challenges and opportunities that big data, open data, and new technologies provide
- Develop strategic recommendations for the agency that can add value and hasten the adoption of innovative policies and programs across the region

# Committee Goals

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- Expected Deliverable: *Regional Smart Cities Framework*
  - A report to be adopted by the Regional Council to provide direction to SCAG
    - Policy framework for big data, open data, and smart cities
    - Overview of the topics addressed by the committee, including challenges and opportunities
    - Strategic priorities, including identified short term projects and long term initiatives

# Committee Outlook

# Committee Outlook

Meeting	1	2	3	4	5	6
Goals and Expectations						
Topic Deep Dive						
Data Survey						
Review SCAG Tools						
Smart Cities Framework						

# Committee Outlook

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## Suggested Topics:

- Meeting #2: City Level Challenges and Opportunities
- Meeting #3: Adapting to New Technology
- Meeting #4: Private Sector and Third Party Data
- Meeting #5: Data Driven Decision Making and Transparency

# Defining Open Data, Big Data, and Smart Cities

# Open Data Defined

*"Open data is the idea that some data should be freely available to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control." –Wikipedia*

- Government agencies generally open the most requested existing data sets to the public first
  - This saves time because the data source is:
    - Researched thoroughly once
    - Redacted for privacy and security
    - Attorney approval is granted in advance of CPRA requests

# Open, Reusable Data



GOVERNMENT ONLINE SERVICES RESIDENTS BUSINESS VISITORS



## Permit Activity Reports

Shared by webmaster@riversideca.gov. Last updated 6/1/2014  
Residential and Commercial Building Permit Activity Re



## Fire Responses

Shared by webmaster@riversideca.gov. Last updated 5/23/2014  
Real-time Feed of Fire Department Responses (2010 - Present)



## 311 Calls for Service - Top Request Types

Shared by webmaster@riversideca.gov. Last updated 6/1/2014  
Displays 311 Call Top Request Types (excludes Graffiti, Enforcement, and Trash) (2010 - Present)



## Crime Reports

Shared by rpdcrimeloader. Last updated on 06/07/2014  
All Crimes Reported (Last 5 Years to Date)



## My Neighborhood Map Data

Shared by webmaster@riversideca.gov. Last updated 6/1/2014  
This data powers an interactive map to find specific city of Riverside.

Datasets / Fire Responses

## Fire Responses

Real-time Feed of Fire Department Responses (2010 - Present)  
Created 05/03/2012, Updated 01/21/2014 5:23:25 PM

JSON, XML, CSV, or  
Web Service.



Export

1 2 3 4 5 ... 5146 --

Offset

Page Size

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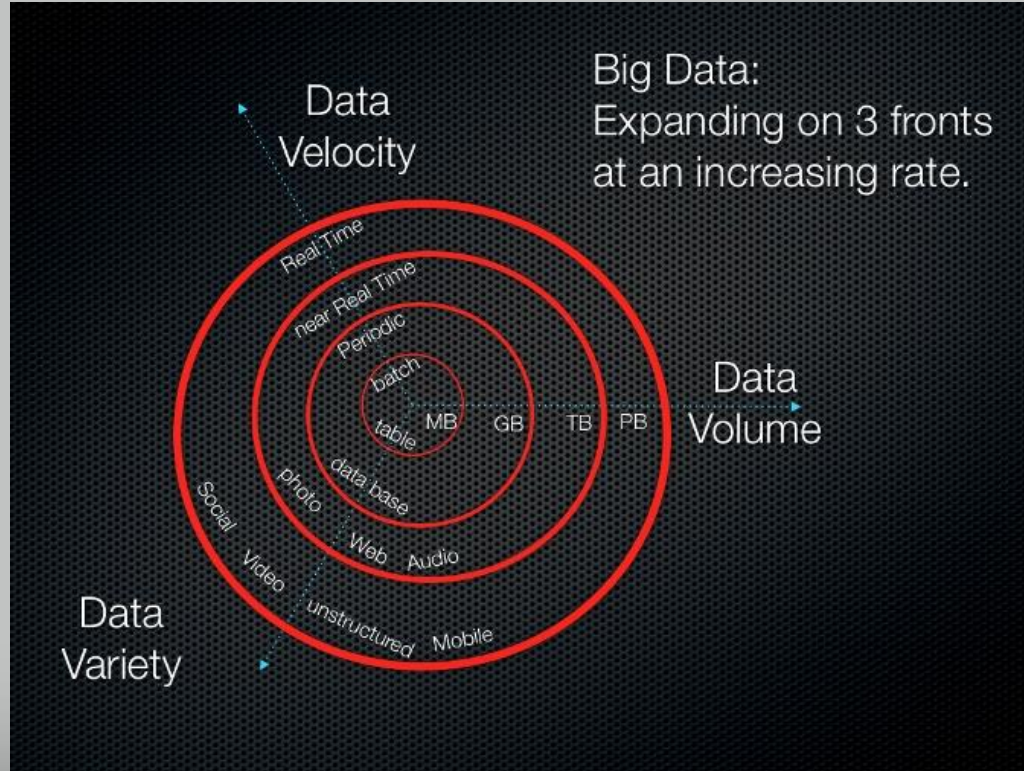
50

100

Address	Response Type	Incident Date	Incident Number
54xx Ivanhoe Ave	EMS call, excluding vehicle accident with injury	2014-01-21 17:14:31	1401822
28xx Hulien Pl	EMS call, excluding vehicle accident with injury	2014-01-21 17:12:30	1401821
69xx Palm Ct	EMS call, excluding vehicle accident with injury	2014-01-21 17:10:54	1401820
46xx Arlington Ave	EMS call, excluding vehicle accident with injury	2014-01-21 17:00:49	1401819
Wb 91 Eo Magnolia	Direct tie to FD, malicious/false alarm	2014-01-21 16:57:06	1401818
Wb 91 Eo McKinley	Assist police or other governmental agency	2014-01-21 16:55:41	1401817
76xx Magnolia Ave	EMS call, excluding vehicle accident with injury	2014-01-21 16:49:11	1401816
Nb 215 No Blaine	Vehicle accident with injuries	2014-01-21 16:44:47	1401815
California Av&Shelby DR	EMS call, excluding vehicle accident with injury	2014-01-21 16:33:45	1401814
99xx Magnolia Ave	EMS call, excluding vehicle accident with injury	2014-01-21 16:26:04	1401813
60xx Mitchell Ave	EMS call, excluding vehicle accident with injury	2014-01-21 16:05:25	1401812
27xx 6th	Outside rubbish, trash or waste fire	2014-01-21 15:44:13	1401811
Magnolia Ave	Forest, woods or wildland fire	2014-01-21 15:21:27	1401810
16xx Main	EMS call, excluding vehicle accident with injury	2014-01-21 15:10:59	1401809
Main	EMS call, excluding vehicle accident with injury	2014-01-21 15:07:46	1401808
xx Round Table Dr	EMS call, excluding vehicle accident with injury	2014-01-21 14:50:42	1401807
90xx Hope Ave	Assist police or other governmental agency	2014-01-21 14:41:05	1401806
Wb 91 Wo 14th	Vehicle accident with injuries	2014-01-21 14:25:44	1401805
33xx Mono Dr	Assist police or other governmental agency	2014-01-21 14:24:46	1401804



# What is BIG Data?



# What is BIG Data?

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## Velocity

- Sensor-based information – traffic flow (Waze), parking

## Variety

- Social Media - sentiment analysis, predictive policing, sidewalk repairs

## Volume

- Raster analytics - solar analysis (12.5 billion points)

# Internet of Things/Analytics

## Analytics

*The Discovery and Communication of meaningful patterns in data*  
-Wikipedia



## Internet of Things (IOT)

*The network of physical objects that contain embedded technology to communicate and interact with their internal states or the external environment*  
-Gartner

*Lots of devices generating lots of real-time data*  
-Scott Larson

# Examples of Analytics and Maturity Level

## Prescriptive— What should we do?

How should we allocate staff?  
Which project should we do first?

## Predictive – What Might Happen?

Is this a trend, or is it an anomaly?  
Can we extrapolate to make predictions for other routes?

## Descriptive with context? – Why Did it Happen?

Why do so many residents lack health insurance?  
Why did traffic spike on this route?

## Descriptive – What Happened?

How many residents lack health insurance?  
What is the busiest route?

URBANINSIGHTS



# Examples of Internet of Things Solutions



Smart buildings

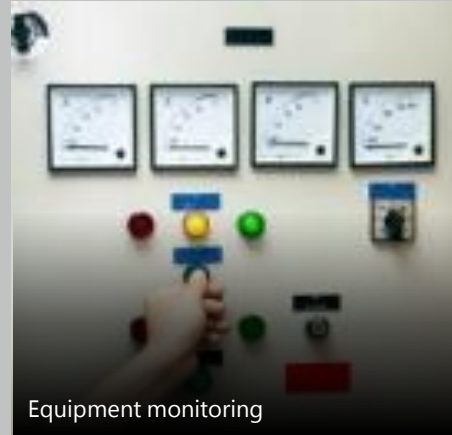
**Carnegie Mellon**



- Created a Smart Campus with connected buildings to understand and improve energy usage



Predictive maintenance



Equipment monitoring

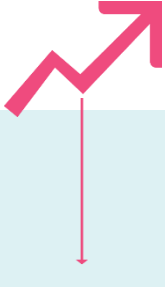
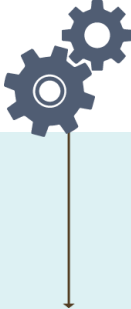
# A Smart Community Is...



# Aspirations



Those aspirations get translated into actionable, real-world initiatives



**Implement Performance Management**

**Reduce Traffic Congestion**

**Create More Affordable Housing**

**Reduce Homelessness**

**Improve Water Conservation**

**Increase Recreation Opportunities**

**Vision Zero**

**Make Parking Easier**

**Create Job Availability**

**Improve Emergency Response Times**

**Use Less Energy**

**Encourage Start-ups**

**Improve Earthquake Preparedness**

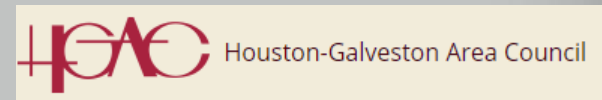
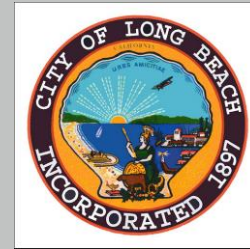


# Internet of Things/Analytics



# SCAG Benchmarking

- Compared SCAG's existing data tools/applications with the largest MPOs and selected regional cities
- Use to further the dialogue in determining the future needs of SCAG's data program
- Ensure the agency maintains a state-of-the-practice program while striving for state-of-the-art



# SCAG Benchmarking

## State-of-the-Practice

- Static maps including those made with GIS
- Static Reports
- GIS Shapefiles
- Interactive maps
- Interactive datasets
- Aerial imagery/lidar

## State-of-the-Art

- Dashboards/Summary data
- Technical advisory committees
- Bi-directional information sharing
- Open-data portal
- Enterprise data systems

# Committee Outlook

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## Suggested Topics:

- Meeting #2: City Level Challenges and Opportunities
- Meeting #3: Adapting to New Technology
- Meeting #4: Private Sector and Third Party Data
- Meeting #5: Data Driven Decision Making and Transparency

# Regional Data Survey

# Survey Audience + Objectives

- Identify current data needs and opportunities from local jurisdictions
- Foster initiatives that support data-driven decision making in regional and local planning
- Meet data related opportunities and challenges of the next decade



# Survey Content

- Data Needs:
  - In what areas of local policymaking, do you have the greatest challenge in securing local or regional data to make informed decisions?
  - In what areas of local policymaking do you have sufficient amounts of data to make informed decisions?
  - What types of data could SCAG provide that would be most beneficial to you?
- Analytics Capabilities:
  - On a scale of 1-10, how much capacity does your agency have to capture and use data to inform decision-making?
  - Does your agency have a GIS department or other avenue for mapping data to better understand local policy issues?



# Survey Content (Continued)

- Data Resources:
  - What data do you collect and report that might be helpful in understanding larger regional trends in housing, transportation, land-use, environment, etc.?
- SCAG's Role + Future Opportunities:
  - What role should SCAG play in the realm of big/open data and smart cities?
  - How often do you use SCAG data sources for your day-to-day work?
  - How could SCAG best promote existing data sets?
  - Are you aware of other regional data collaboratives or partnerships that SCAG should engage through this effort?





# Thank You



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# Open Data/Big Data – Smart & Connected SCAG Region Committee

## Meeting Outlook

### Meeting #1

Objective: Introduce the goals and expected outcomes of the committee. Provide an overview of what big data, open data, and smart cities are and begin to explore what SCAG's role might be in this field.

Proposed Agenda:

- Welcome
- Introductions
- Review Committee Goals
- Review Committee Outlook
- Defining Open Data, Big Data, and Smart Cities
- Preview Data Survey
- Discuss Topics for Future Meetings

### Meeting #2

Objective: To understand the challenges and opportunities faced by local cities as they engage with big data, open data, and changing technology. Identify opportunities for SCAG to provide regional guidance and tools for local governments.

Proposed Agenda:

- City Level Challenges and Opportunities
  - Suggested Topics:
    - City Level Initiatives (Pasadena, Riverside, Los Angeles, San Diego)
    - Local Level Challenges and Opportunities (Standardization, Resources, Coordination, Best Practices)
    - California Community Foundation – Social Change Data Commons
    - Impact on Local Cities of State and Federal Legislation
- Finalize and Approve Release of Data Survey
- Review Strategic Plan Goals Related to Data
- Existing SCAG Tools ([Local Profiles](#), Local Input Process)

### Meeting #3

Objective: To understand the impacts new and emerging technologies may have on the delivery of government services and identify strategies for assisting cities in meeting these changes. Identify opportunities for SCAG to provide regional guidance and tools for local governments.

Proposed Agenda:

- Adapting to New Technology
  - Suggested Topics:

- Technology (Automated Vehicles, Fiber Networks, Artificial Intelligence, Robotics, Small Cell Towers, etc.)
  - Internet of Things
- Update on Survey Progress
- Update on Strategic Plan Integration
- Existing SCAG Tools ([PEV Atlas](#), [GIS Open Data Portal](#))

#### **Meeting #4**

Objective: To identify opportunities for engaging with private sector data providers to improve government services. To understand how SCAG may be able to leverage its regional capacity to provide access to these services to its members.

#### Proposed Agenda:

- Private Sector and Third Party Data
  - Suggested Topics:
    - Third Party Data (Google, Streetlight, HERE, etc.)
    - State and National Data Set (CHIS API, Census, etc.)
    - University Partnerships
- Review Final Survey Results
- Preliminary Draft of SCAG’s Regional Smart Cities Framework
- Existing SCAG Tools ([REVISION](#), [Scenario Planning Model](#), Existing SCAG Data Sets)

#### **Meeting #5**

Objective: To understand how the benefits of new technologies, access to data, and future policies may vary across the region depending on readiness, resources, and responsiveness. Identify the opportunities for SCAG to provide regional leadership and support for low resource communities.

#### Proposed Agenda:

- Data Driven Decision Making and Transparency
  - Suggested Topics:
    - Data Equity/The Digital Divide
    - Data Driven Decision Making
    - Analytics and Dashboarding
- Review Draft SCAG’s Regional Smart Cities Framework
- Existing SCAG Tools (Active Transportation Database, EFID/CRIA Tool, [Green Region Initiative](#))

#### **Meeting #6**

Objective: To finalize a Regional Smart Cities Framework that will provide SCAG with a blueprint for providing regional guidance, developing initiatives, and engaging partners in the realm of big data, open data, and smart cities.

#### Proposed Agenda:

- Finalize SCAG’s Regional Smart Cities Framework

## Background

**SCAG is launching a new Open Data/Big Data—Smart and Connected SCAG Region Committee to help the region meet the data related opportunities and challenges of the next decade. The committee will be tasked with identifying initiatives that increase the use of data and analytics in regional and local planning.**

**To ensure that the process is productive and engaging, SCAG is conducting outreach to stakeholders across our region to identify current data needs and opportunities. Please take a few minutes to answer our short survey.**

\* 1. First Name

\* 2. Last Name

\* 3. Email

4. What is your role in your organization?

- Elected official
- City Manager
- City Staff
- Consultant
- SCAG Employee
- Member of the Public
- Student
- Other (please specify)

## Local Data Needs

5. In what areas of local policymaking, do you have the greatest challenge in securing local or regional data to make informed decisions? (Check all that apply)

- Land Use
- Transportation
- Water
- Energy
- Health
- Demographic Changes
- Economic Development
- Climate Adaptation
- Education
- Law Enforcement
- Open Space
- Housing
- Environmental Justice
- Other (please specify)

6. In what areas of local policymaking do you have sufficient amounts of data to make informed decisions?  
(Check all that apply)

- Land Use
- Transportation
- Water
- Energy
- Health
- Demographic Changes
- Economic Development
- Climate Adaptation
- Education
- Law Enforcement
- Open Space
- Housing
- Environmental Justice
- Other (please specify)

7. On a scale of 1-10, how much capacity does your agency have to capture and use data to inform decision-making?



8. Does your agency have a GIS department or other avenue for mapping data to better understand local policy issues?

- Yes
- No

9. What data do you collect and report that might be helpful in understanding larger regional trends in housing, transportation, land-use, environment, etc.? (Check all that apply)

- Land Use
- Transportation
- Water
- Energy
- Health
- Demographic Changes
- Economic Development
- Climate Adaptation
- Education
- Law Enforcement
- Open Space
- Housing
- Environmental Justice

Other (please specify)



## Regional Data Support

10. What role should SCAG play in the realm of big/open data and smart cities?

	No Role	Minor Role	Major Role	No Opinon
Convene Data Users	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop Data Tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Standardize Data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coordinate Data Collection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop New Data Sets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. How often do you use SCAG data sources for your day-to-day work?

- Daily
- Weekly
- Monthly
- Rarely
- Never

12. What types of data could SCAG provide that would be most beneficial to you? (Check all that apply)

- GIS Datasets
- City Level Data
- Census Data
- Parcel Data
- General Plan Data
- Transportation Data
- Housing Data
- Economic Data
- Health Data
- Other (please specify)

13. How could SCAG best promote existing data sets?

	I Don't Like This Idea	This is an Ok Idea	This is a Great Idea
Host Hackathons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conduct In Person Trainings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Host Webinars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop Regional Initiatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide Online Resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other Ideas? (please specify)

## Follow Up

14. Are you aware of other regional data collaboratives or partnerships that SCAG should engage through this effort?

15. Who would be the best person within your agency to contact about being a part of regional conversations on big data and open data?

First Name

Last Name

Email