

Welcome



Reducing Emissions from Trucks Operating at California's Ports and Rail Yards

Town Hall Meeting
March 29, 2007

Air Resources Board



California Environmental Protection Agency

Agenda

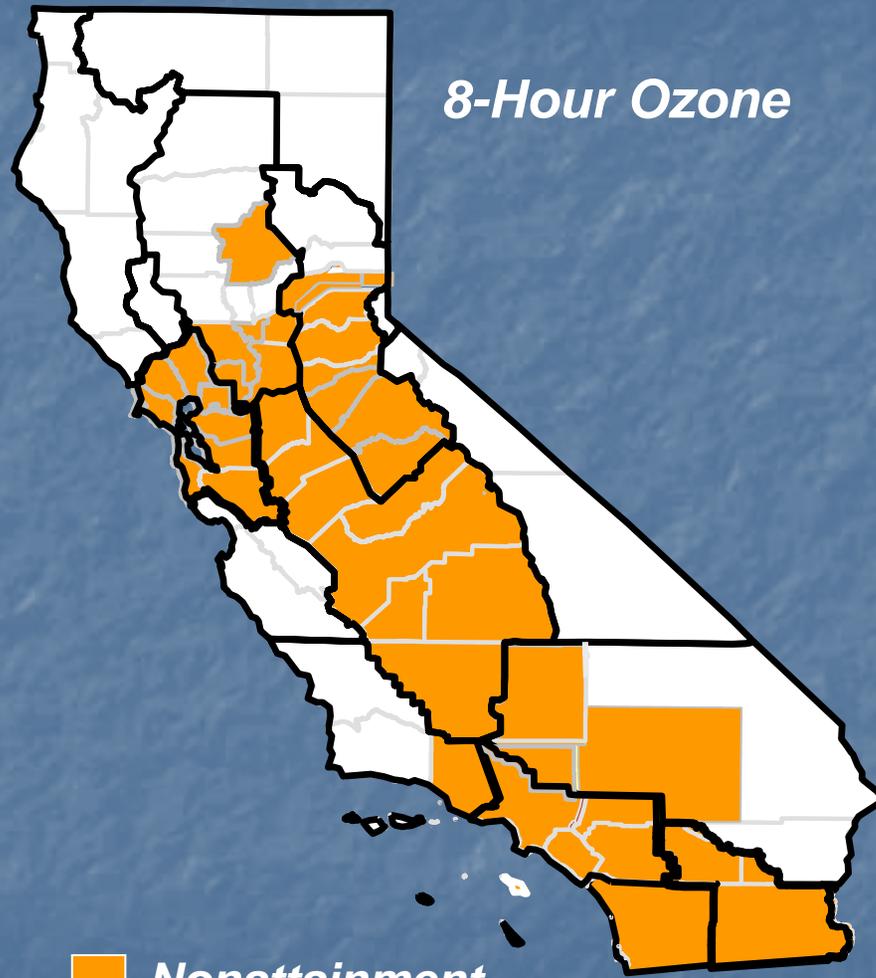
- Introductions
- Background
- Regulation concept
- Implementation concept
- Future meetings
- Discussion

Background

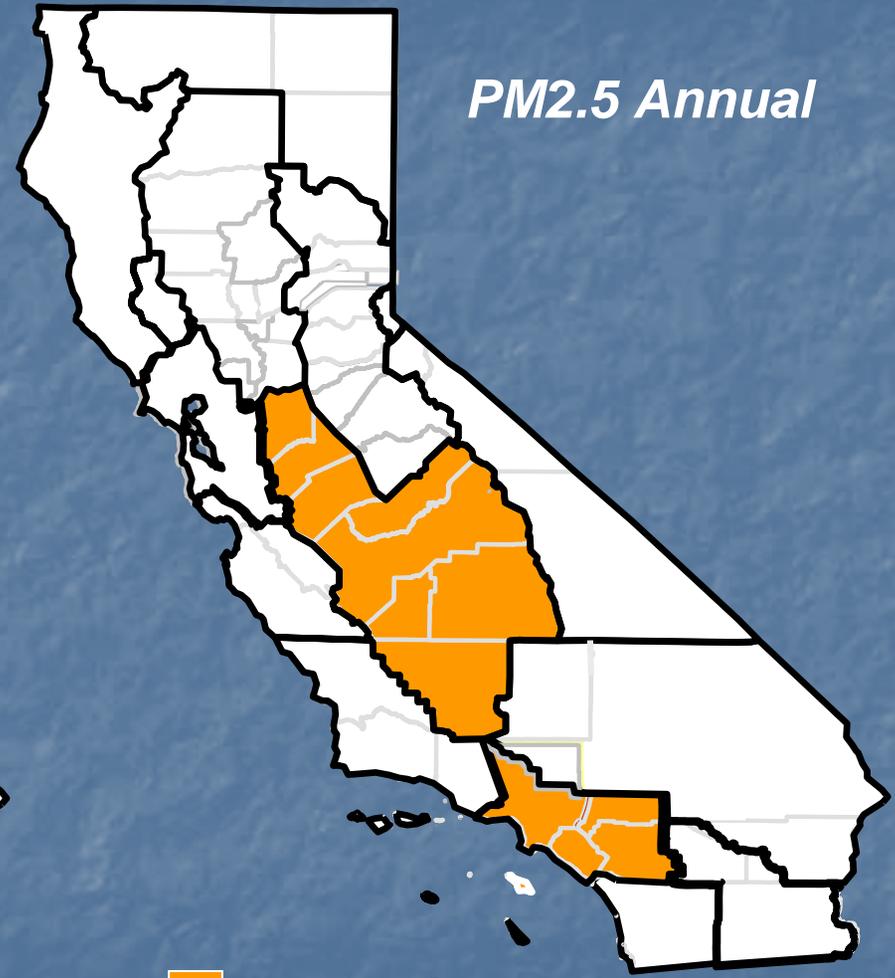
Part of Statewide Effort

- Diesel Risk Reduction Plan
 - 85% Reduction in diesel PM by 2020
- Goods Movement Action Plan
 - ARB's emission reduction plan – 2006
- State Implementation Plan (SIP)
 - 15 local areas violate the federal 8-hour ozone standard
 - 2 areas violate the federal annual PM2.5 standard

Area Designations for National Ambient Air Quality Standards for Ozone and PM2.5



8-Hour Ozone



PM2.5 Annual

 *Nonattainment*
 *Unclassified/Attainment*

 *Nonattainment*
 *Unclassifiable/Attainment*

SIP Strategy

- ARB will work with local districts and federal government to achieve reductions
- New reductions will be needed from all sources:
 - Consumer products
 - Stationary sources
 - Goods movement
 - Evaporative emissions
 - Mobile sources
 - On-road and off-road

Why a Port Truck Regulation?

- Administrative directive
- Part of overall goods movement plan
- Recognized as a main emission source



Goals/Objectives

➤ Meeting goals/objectives

- Devise a regulation that works
- Meet with stakeholders
- Implementation & enforcement



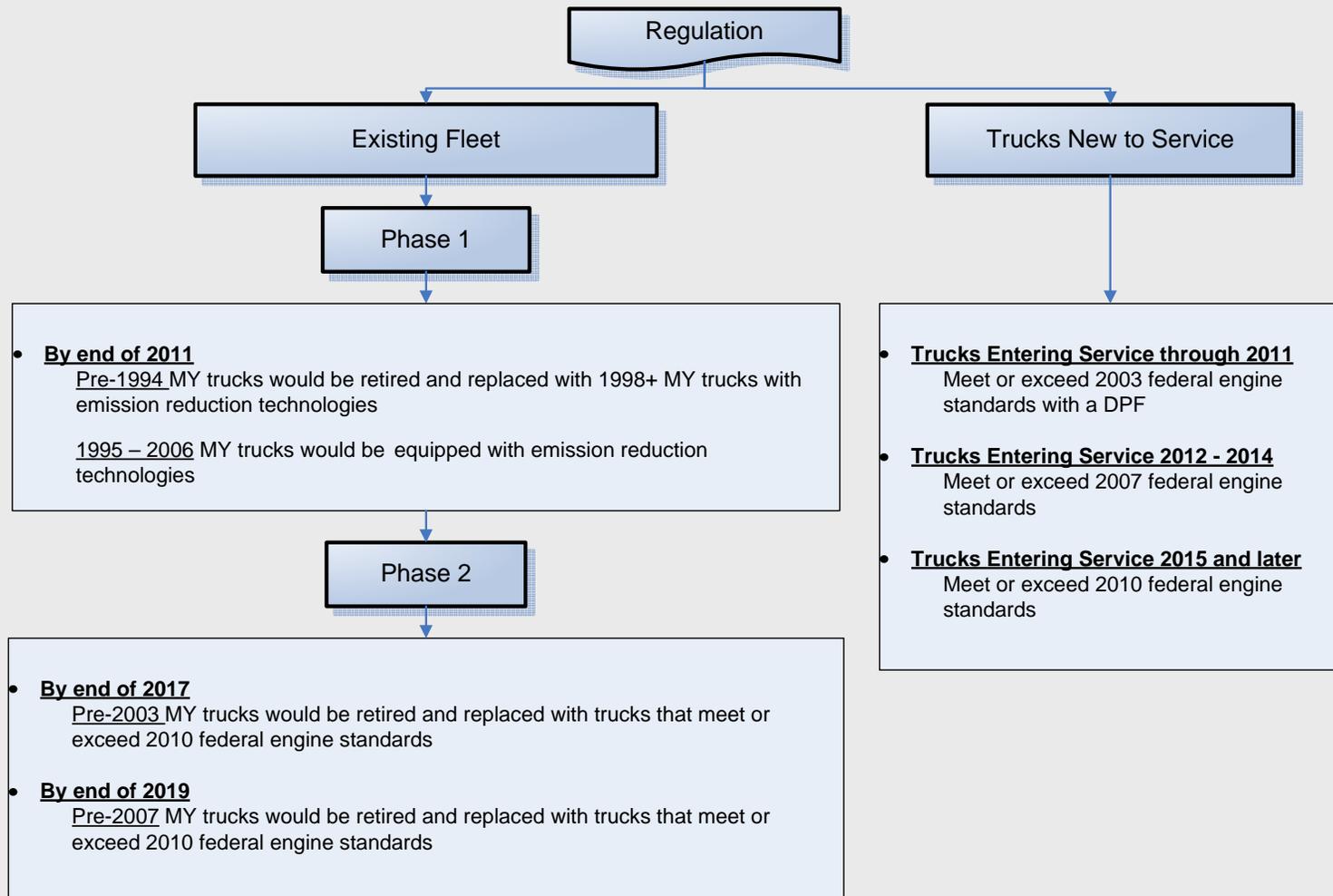
Previous Meetings

- Ports - all in California
- Rail Yards – all intermodal
- Trucks – all
- Discussed responsibilities
- Issues
 - Large port truck fleet
 - Dray-off
 - Economics



Regulation Concept

Draft Port / Intermodal Truck Regulatory Concept – Major Milestones



Phase 1

Replacement and Retrofit Schedule

Truck Model Year	Due Date	Replacement Truck Model Year	Retrofit
Pre-1986	By the end of 2008	1998 or newer	DPF + NOx catalyst
1986, 1987, 1988, 1989	By the end of 2009	1998 or newer	DPF + NOx catalyst
1990, 1991	By the end of 2010	1998 or newer	DPF + NOx catalyst
1992, 1993	By the end of 2011	1998 or newer	DPF + NOx catalyst

Retrofit Schedule

Truck Model Year	Due Date	Retrofit
2003, 2004, 2005, 2006	By the end of 2008	DPF
2000, 2001, 2002	By the end of 2008	DPF + NOx catalyst
1998, 1999	By the end of 2009	DPF + NOx catalyst
1996, 1997	By the end of 2010	DPF + NOx catalyst
1994, 1995	By the end of 2011	DPF + NOx catalyst

Phase 1 - Examples

Replacement and Retrofit Schedule Handout

- Example 1 - You have a 1990 model year truck
 - By the end of 2010, you must:
 - Replace with 1998 or newer MY truck
AND
 - Install a diesel particulate filter AND a NOx reduction catalyst
- Example 2 - You have a 2001 model year truck
 - By the end of 2008, you must:
 - Install a diesel particulate filter AND a NOx reduction catalyst
- Example 3 - You have a 2004 model year truck
 - By the end of 2008, you must:
 - Install a diesel particulate filter

Phase 2

- **By end of 2017**
 Pre-2003 MY trucks would be retired and replaced with trucks that meet or exceed 2010 federal engine standards
- **By end of 2019**
 Pre-2007 MY trucks would be retired and replaced with trucks that meet or exceed 2010 federal engine standards

Trucks New to Service

- **Trucks Entering Service through 2011**
Meet or exceed 2003 federal engine standards with a DPF
- **Trucks Entering Service 2012 - 2014**
Meet or exceed 2007 federal engine standards
- **Trucks Entering Service 2015 and later**
Meet or exceed 2010 federal engine standards

Technologies

- Retrofit Technologies
 - Must be ARB Verified
 - Hardware Diesel Emission Control Strategies:
 - Diesel Particulate Filters –
 - Level 3 (85% reduction)
 - ❖ Passive
 - ❖ Active
 - NOx Catalyst (Minimum 25% reduction)

Technologies (cont.)

Diesel Particulate Filters

- Reduces Diesel PM
- Passive
 - Cost ~\$8,500
 - Installation: ~3 Hours
- Active
 - Cost ~\$15,000
 - Installation: ~3 Hours



Technologies (cont.)

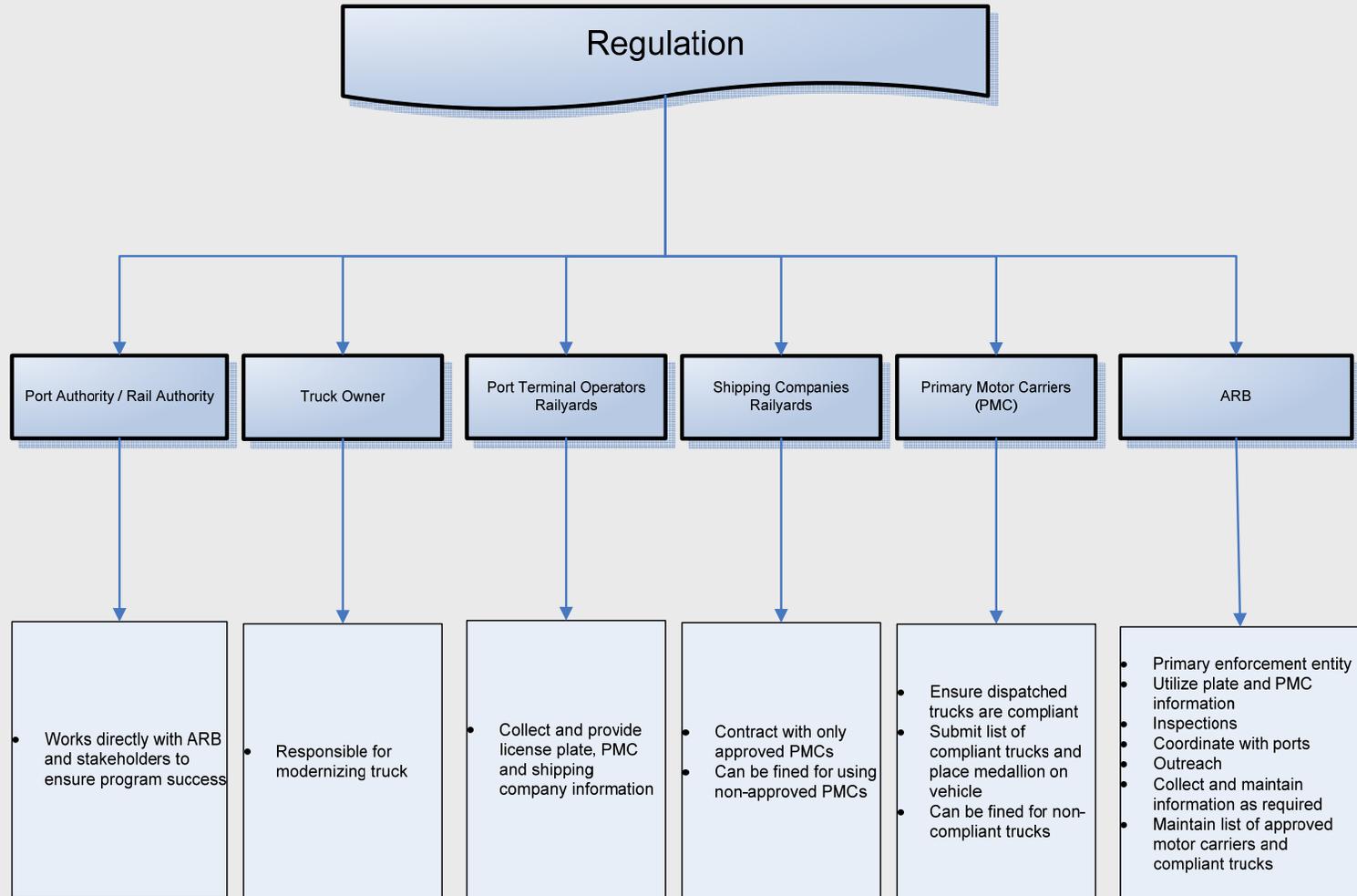
NOx Reduction Catalysts

- **Reduces Oxides of Nitrogen (Smog)**
 - Installed as a package with DPF
 - Cost ~\$20,000 (NOx catalyst + DPF)
 - Installation: ~3 Hours



Implementation Concept

Draft



Implementation Concept (cont.)

Port Authority / Rail Authority



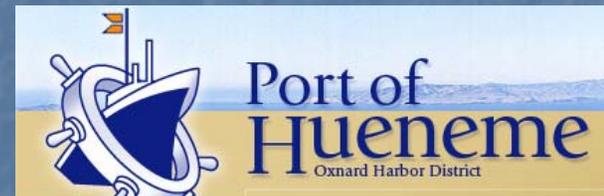
- Works directly with ARB and stakeholders to ensure program success

BNSF



PORT OF OAKLAND

More Than Just a Dock on the Bay



Implementation Concept (cont.)

Truck Owner



- Responsible for modernizing truck



Implementation Concept (cont.)

Terminal Operators
Rail yards



- Collect and provide license plate, PMC and shipping company information



Implementation Concept (cont.)

Shipping Companies



- Contract with only approved PMCs
- Can be fined for using non-approved PMCs

Shipping Company:

Any company of any size or type that contracts with motor carriers or dispatchers to provide trucks to be used at the ports or rail yards



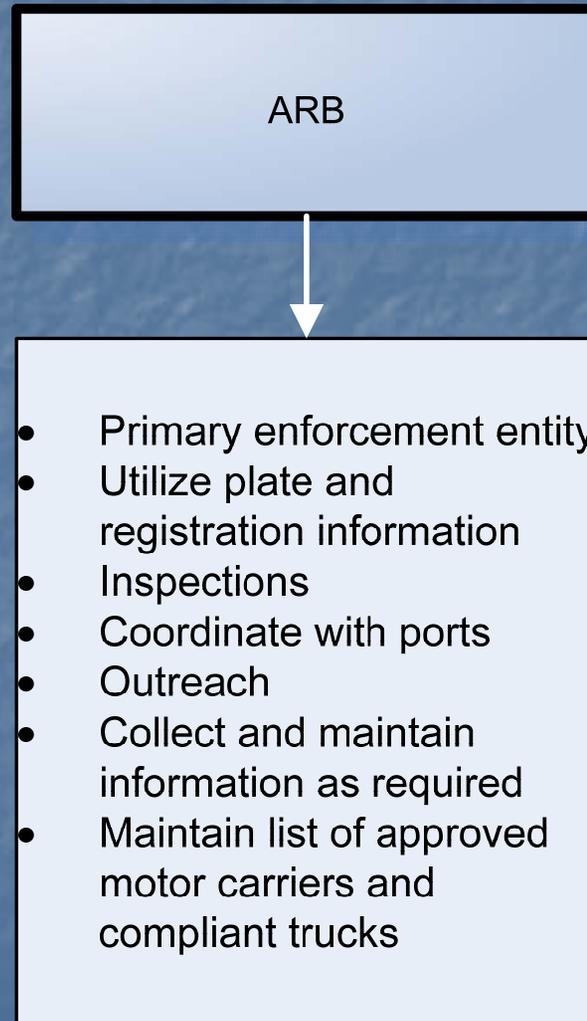
Implementation Concept (cont.)

Primary Motor Carriers

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- Ensure dispatched trucks are compliant
- Submit list of compliant trucks
- Can be fined for non-compliant trucks

Implementation Concept (cont.)



ARB's Two Truck Measures

Port/Intermodal
November 2007

Private Fleet
Late 2007/Early 2008

Action Items

Future Meetings/Contact Info

- Staff Report Including Draft Regulation – Sept. 2007
- Board Consideration – November 2007

- Future Public Workgroup Meeting:
 - To be Determined



- Contact Information:
 - Michael Miguel, Manager
 - Phone: (916) 445-4236
 - email: mmiguel@arb.ca.gov

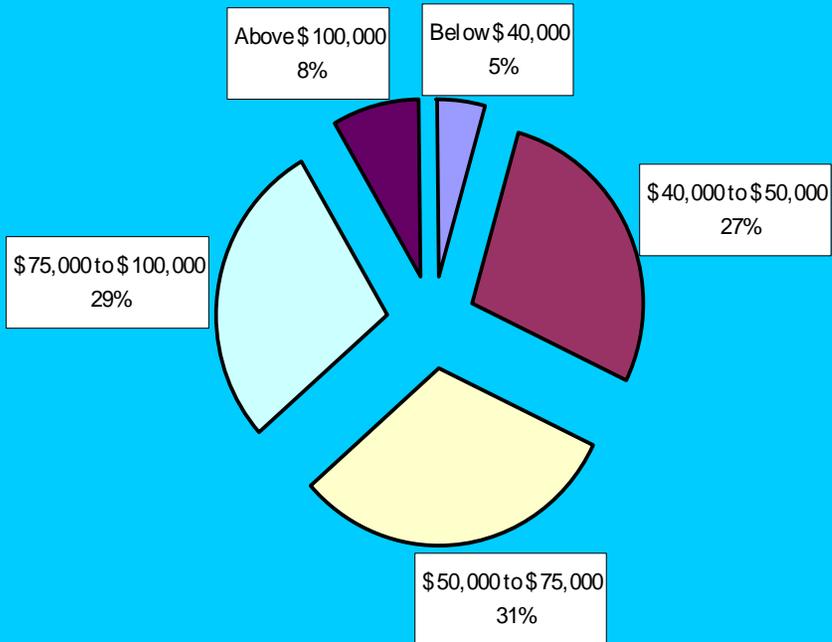


Website:

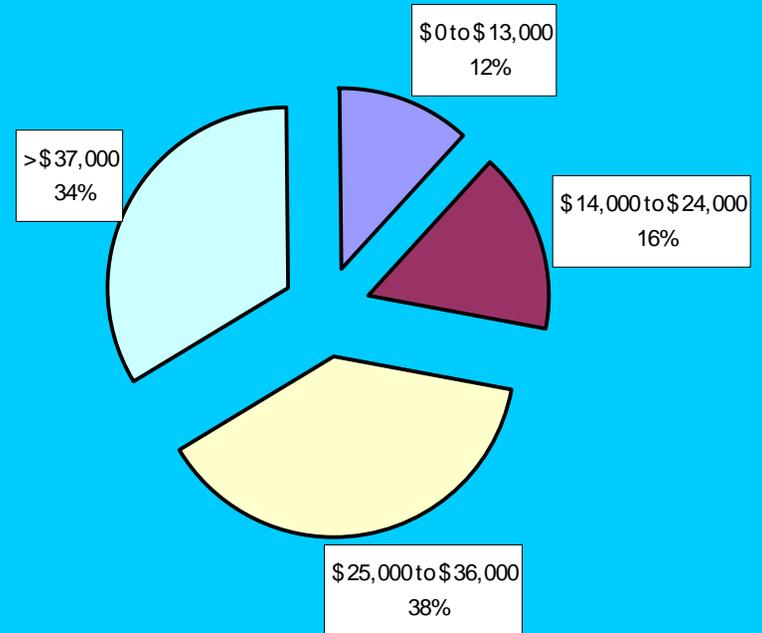
<http://www.arb.ca.gov/msprog/onroad/porttruck/porttruck.htm>

Preliminary Survey Results

Gross Annual Income



Annual Truck Expenses



Questions/Comments

