



The Regional Distribution of  
Cap & Trade Auction Funds

Prepared by:



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# Key findings

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- Cap-and-Trade auctions will conservatively generate approximately \$16 billion for state programs through 2020, leveling off at \$2.7 - \$2.8 billion starting in 2015/16. To date, all current vintage allowances offered at auction have been sold, averaging ten percent over the reserve price
- Approximately \$6 billion of forecasted Cap-and-Trade revenues through 2020 are not programmed for particular programs currently
- Future budgets will need to account for 40 percent of program spending that is not continuously allocated and approximately \$1 billion in surplus from 2014/15 and prior budget years
- Cap-and-Trade revenues are primarily being spent in the southern Central Valley, the San Francisco Bay Area and Southern California. Though there are clear guidelines for geographically allocating 25 percent of the Cap-and-Trade revenues, clear guidelines have not been established to geographically allocate the remaining 75 percent. This report outlines three potential principles for allocating the remaining funds geographically
  - Depending on the methodology for geographically allocating funds utilized, Los Angeles County appears receives \$80 - \$128 million less than its fair share
  - Conversely, the southern Central Valley, especially Fresno and Madera Counties, is receiving more than its fair share, depending on the selected methodology. Fresno receives a surplus of \$94 - \$111 million and Madera receives \$104 - \$107 million. This is primarily due to short term spending on High Speed Rail. High Speed Rail spending will move over time as sections of the system are completed
  - Southern California, Contra Costa and the Sacramento area generally appear to be underfunded and Bay Area counties, other than Contra Costa, appear to operate at a surplus

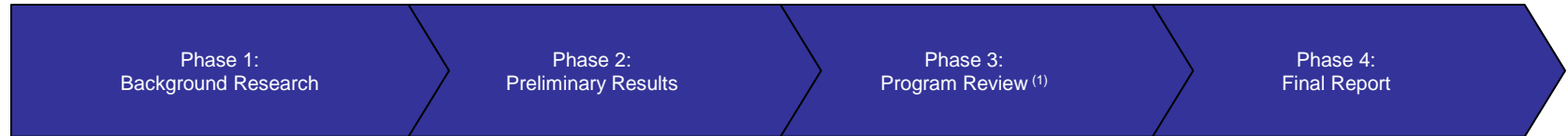
## Our current situation

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- As the State of California implements and expands AB 32, policymakers are increasingly sensitive to program elements that are disproportionately impacting low-income and working class Californians. Higher gas and utility bills hit lower income households most heavily. Moreover, some believe that the burdens imposed by AB 32 most impact regions of the state that are least able to carry the excess burden; areas such as the Central Valley have high unemployment and are dependent on highly impacted industries including manufacturing and agriculture
- While all regions of the state will carry some burden, they will also receive a share of the Cap-and-Trade revenues to help mitigate losses. The most significant guidance in distributing funds is SB 535 (DeLeon), which requires that at least 25 percent of these cap-and-trade funds be invested for the benefit of the State's most disadvantaged communities. At least 10 percent of those funds must be for projects located within the communities themselves. The Brown Administration has indicated that it views the requirements established by SB 535 as minimum standards and that disadvantaged communities will likely receive more of those funds
- To date, AB 32 auctions have generated \$2.8 billion, which has been allocated to Public and Independent Utilities as well 20 program areas, distributed across 12 departments. Only a very small portion of the program funds have been distributed and most remain in the early planning or procurement stages. Nonetheless, policymakers have requested these estimates on how current policy favors the geographic distribution of Cap-and-Trade funds to help inform their involvement in the process
- Andrew Chang & Company, a Sacramento based economic and management consulting firm, has been retained to assess the geographic distribution of Cap-and-Trade funds. While we acknowledge that it is extremely early in the process and significant uncertainty exists, we have undertaken a rigorous process, assessing the literature, programmatic guidance and contacting staff in each of the departments to discuss the programs and our methodology

# We completed this report through a four phase methodology

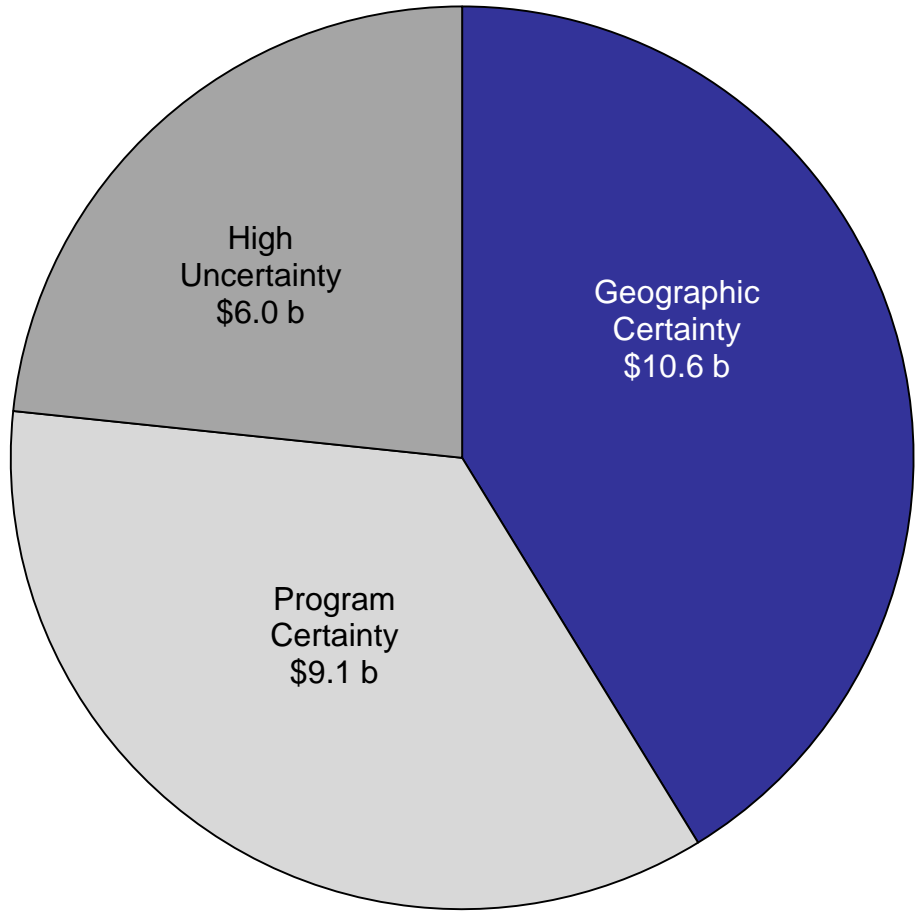
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|                  |   |  |   |   |
|------------------|---|--|---|---|
| <b>Duration:</b> | October 2014  | November 2014  | December – January 2014   | January 2014  |
| <b>Purpose:</b>  | Develop thorough understanding of the programs and policies that are impacting the distribution of Cap-and-Trade auction funds  | Develop preliminary results to facilitate engagement of program staff  | Developing a more thorough understanding of programs and policies and identify opportunities for refinement   | Incorporate refinements and update based on program updates   |
| <b>Tasks:</b>    | <ul style="list-style-type: none"> <li>▪ Review statutory documentation</li> <li>▪ Review ARB documentation</li> <li>▪ Review program documentation</li> <li>▪ Review additional literature</li> <li>▪ Identify data</li> </ul> | <ul style="list-style-type: none"> <li>▪ Preliminary auction revenue estimates</li> <li>▪ Preliminary spending estimates</li> <li>▪ Preliminary geographic distribution estimates</li> </ul> | <ul style="list-style-type: none"> <li>▪ Review overall understanding, approach with ARB</li> <li>▪ Review program-specific understanding, approach with programs</li> <li>▪ Identify opportunities for refinement</li> </ul> | <ul style="list-style-type: none"> <li>▪ Implement identified revisions</li> <li>▪ Finalize report</li> </ul> |

# We have geographic certainty for utility funding, but little geographic certainty for other programs

## Distribution of Funds by Status (Including future funds)

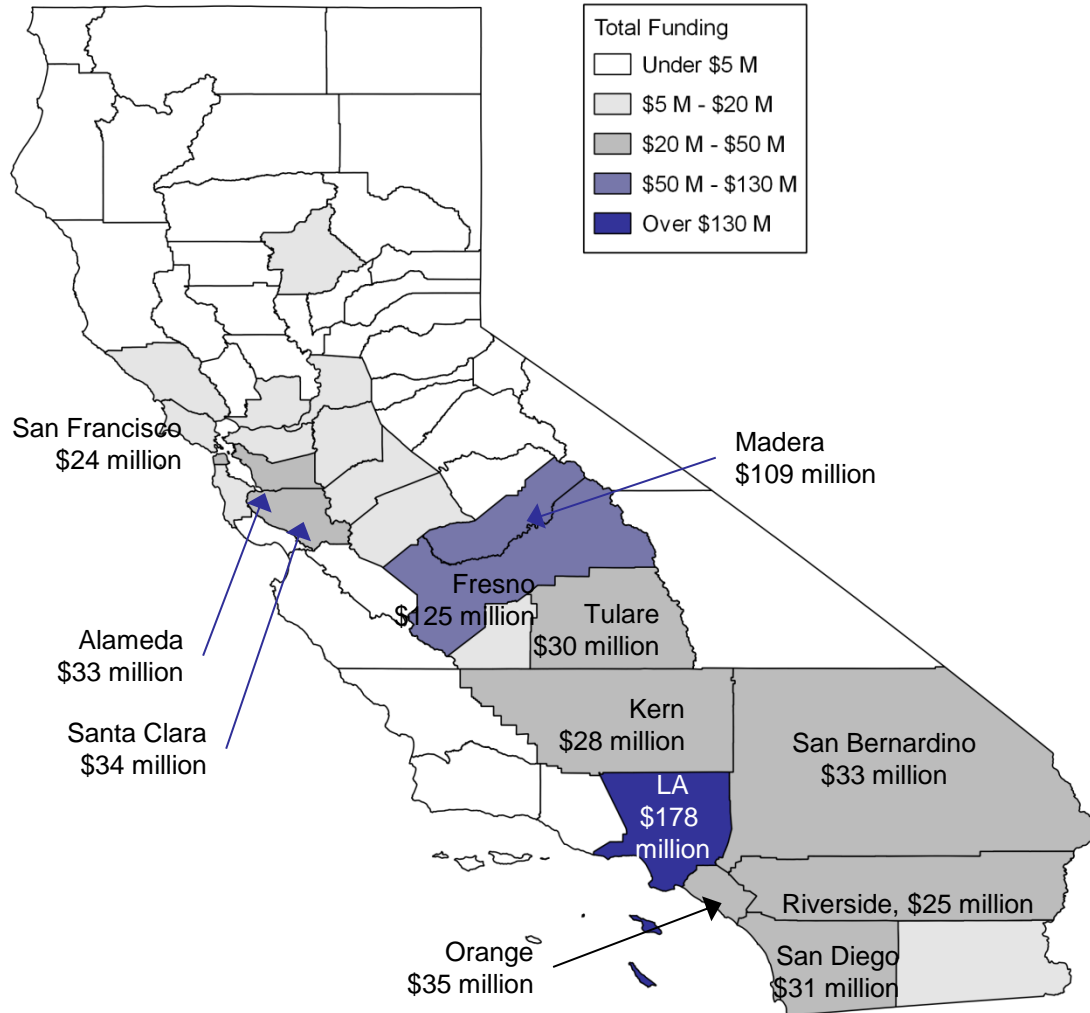


## Key Observations

- Over \$2.3 billion has been directed to Public and Independent Utilities. These funds are intended to offset potential rate increases and we assume will be distributed in close alignment with electricity consumption. The distribution methodology is well defined and we have a high degree of certainty as to where funds will be received
- Over \$800 million has been allocated in the 2014-15 budget year. Generally, while the programs are defined, they remain in the planning or procurement stages, so there is significant uncertainty as to where it will be spent geographically. Additionally, future policy decisions could change it significantly
- Four hundred million dollars has been loaned to the state's general fund. The timing and programmatic priorities when this debt is repaid will define its geographic distribution so there is currently high uncertainty
- Moving forward, the portion directed to utilities is known and well defined. Sixty percent of the remaining funds are directed to specific programs, but the details are highly uncertain. Forty percent of the remaining funds are currently unallocated
- Program to date includes allocated funds through the remaining two auctions in the 2014-15 budget year

# Cap-and-Trade revenues are primarily being spent in the southern Central Valley, the San Francisco Bay Area and Southern California

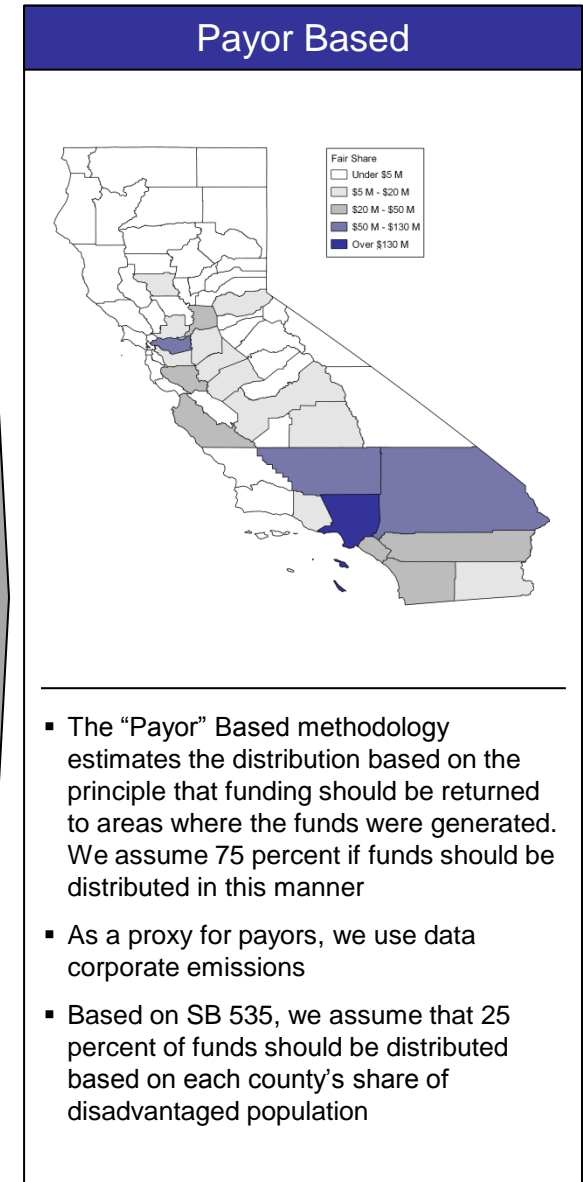
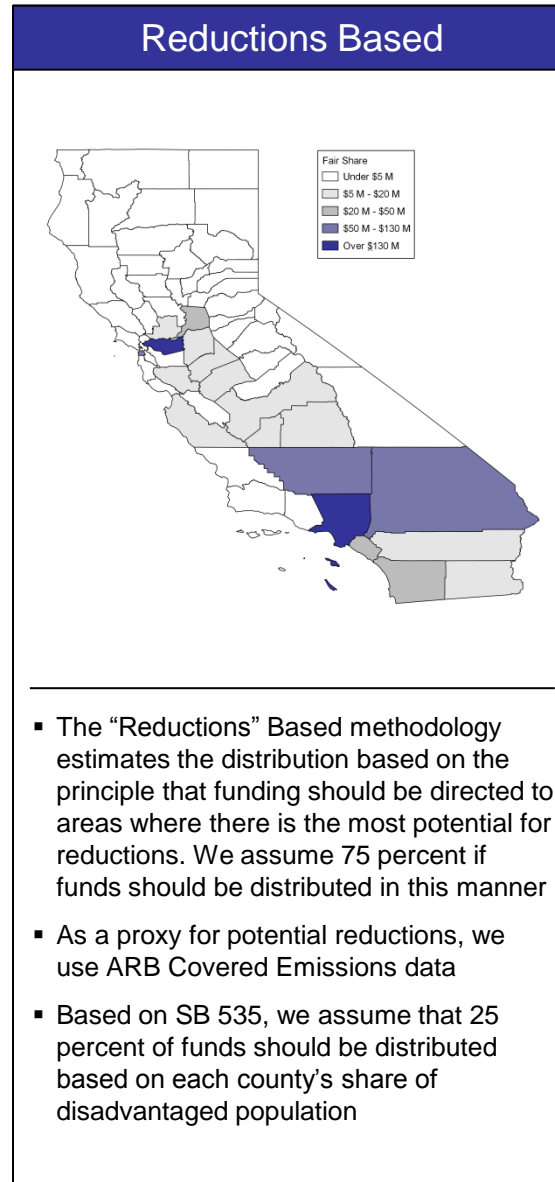
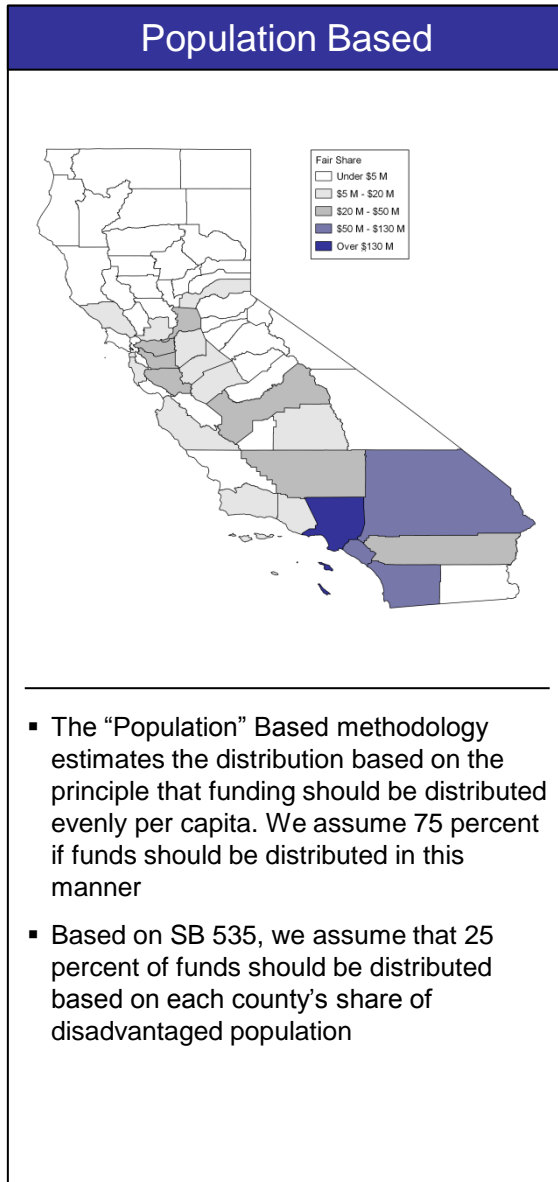
## Estimated Share of Auction Funds by County



## Key Observations

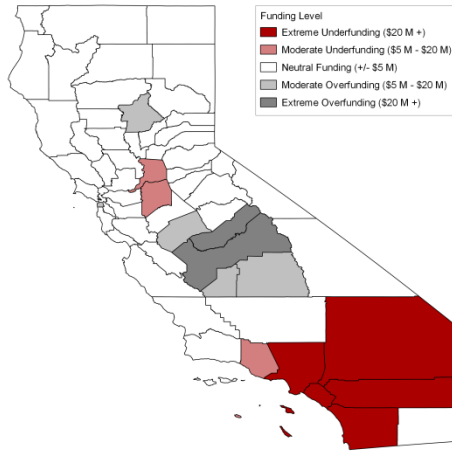
- The southern Central Valley receives a disproportionate share of High Speed Rail funds because it is the location of the first phase of construction. It will receive less in the future
- The Bay Area receives a higher share because of subsidies for low carbon automobiles and existing transit operations,
- Southern California receives a high share largely because of its high population, it receives a small share on a per capita basis

Based on SB 535 and CalEnviroScreen, we developed three models of how spending could be “fairly” distributed



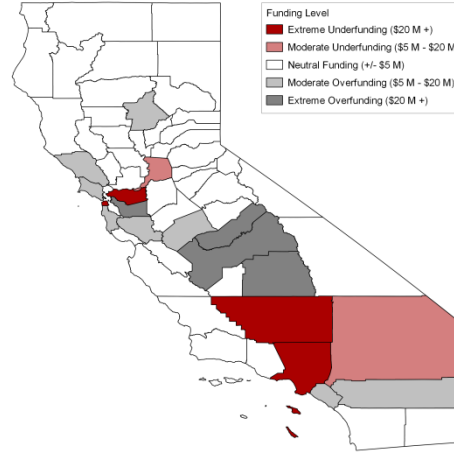
# Los Angeles, Kern, San Bernardino and Sacramento counties are underfunded in all scenarios

## Gap – Population Based



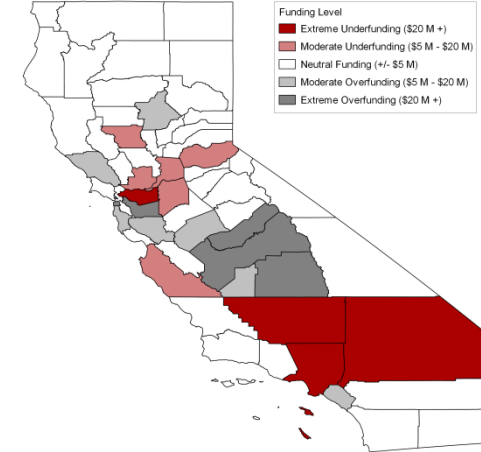
- The Population Based methodology is focused on directing revenues evenly per capita. Based on this methodology:
  - Heavily populated Southern California counties are most underfunded. Sacramento and Stanislaus Counties are also underfunded
  - The southern Central Valley and Butte County are over funded

## Gap - Reductions Based



- The Reductions Based methodology is focused on directing revenues to where there is the most potential for reductions. Based on this methodology:
  - Los Angeles, Kern, Contra Costa and San Francisco Counties are most underfunded. San Bernardino and Sacramento Counties are also underfunded
  - The southern Central Valley and other Bay Area counties are over funded

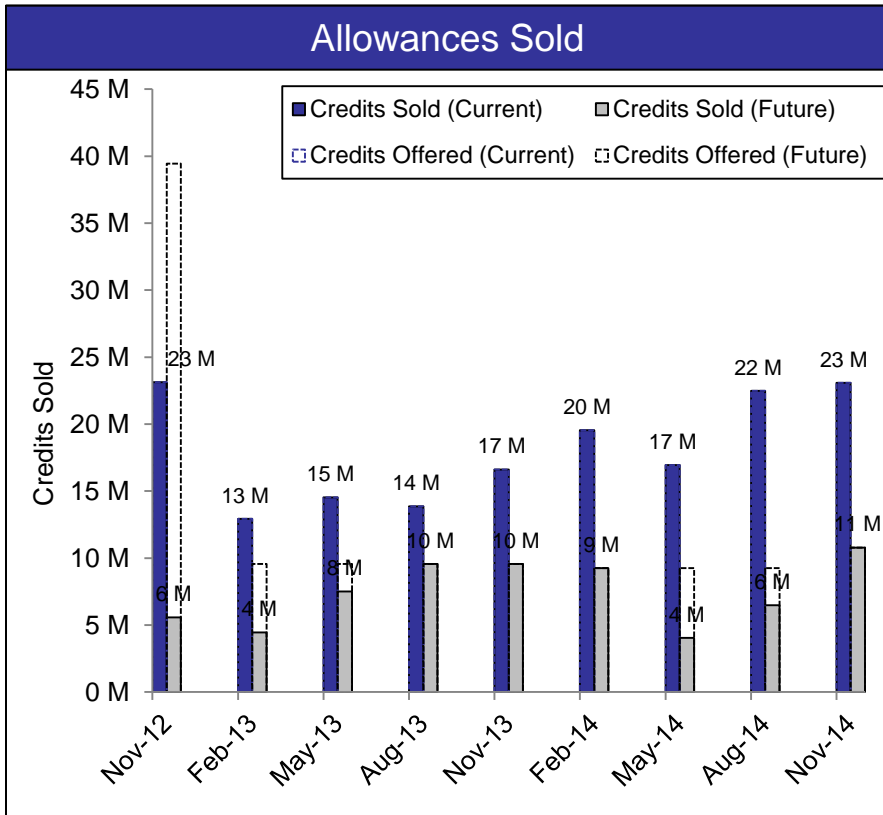
## Gap – Payor Based



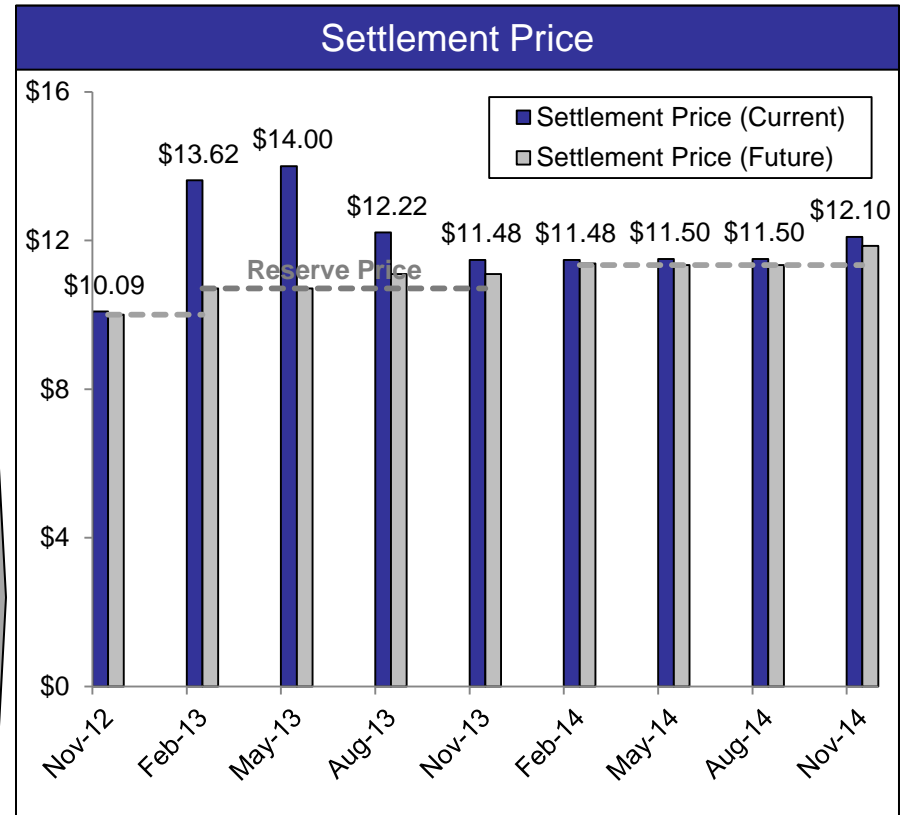
- The Payor Based methodology is focused on returning revenues to where they were produced. Based on this methodology:
  - Los Angeles, San Bernardino, Kern and Contra Costa Counties are most underfunded
  - The southern Central Valley and most Bay Area counties are over funded



ARB has held nine auctions (quarterly) to date, with settlement prices ranging from 1 percent to 30 percent higher than the reserve price

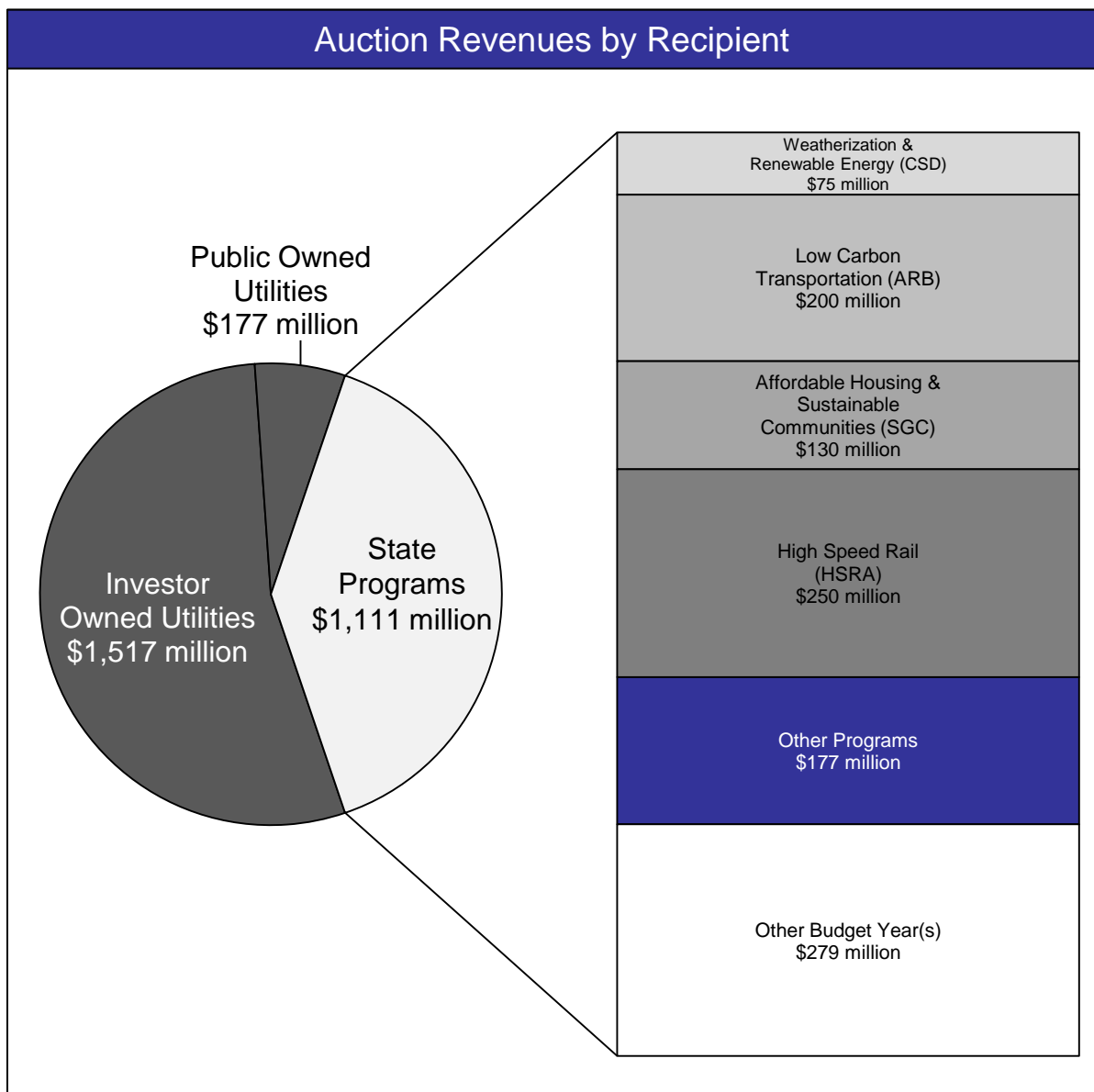


- AB 32 allowed for the creation of a market mechanism to help achieve targeted green house gas (GHG) reductions. As a result, ARB created the Cap-and-Trade program, which allocates a limited number of emission credits, allowing for a declining amount of emissions
- ARB holds auctions quarterly and to date has sold 196 million credits over 8 auctions, including 55 million of future vintage
- In most cases, not all future vintage credits offered were sold. In these cases, the credits will be re-offered as current vintage in the future



- Each auction has a reserve price, the reserve price increases each calendar year and is the same for credits purchased for both the current and future vintage
- The settlement price for current vintage credits has always exceeded the reserve price, in one case, by as much as 30 percent, but has typically been relatively close to the reserve price
- The settlement price for future vintages has always been at, or very close to, the reserve price

# AB 32 created a Cap-and-Trade auction that has collected \$2.8 billion to date, most of which is consigned by the state's utilities

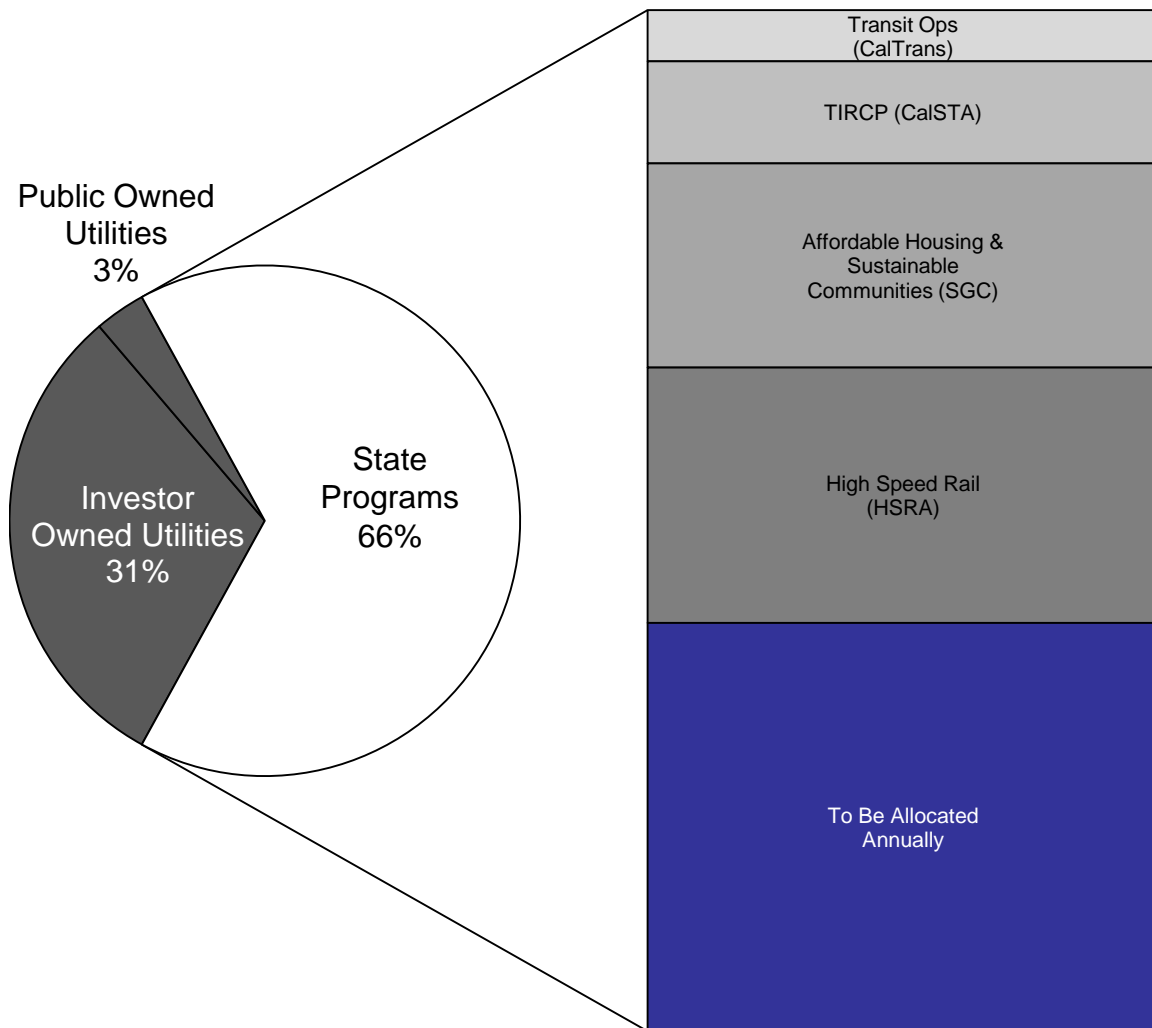


- ### Key Observations
- AB 32 allocates credits for free to electrical distribution utilities to protect rate payers from sudden increases in the electricity bills (Sections 95870(d), 95890 and 95892)
  - The PUC has directed the utilities to return 85 percent of the revenue generated by these to rate payers. The remaining 15 percent may be directed towards investments in GHG reductions
  - To date, nearly two-thirds of the credits auctioned have been consigned by the state's utilities, primarily the large Investor Owned Utilities (IOU), with the smaller Public Owned Utilities (POU) receiving about 10 percent
  - The State of California has generated \$1.1 billion to date, mostly from the sales of future vintage credits, which are not consigned

Source: State of California, Air Resources Board, Archived Auction Information and Results, 9/18/2014

# In future years, an average of 34 percent of auction funds will be allocated to Utilities and 66 percent to State Programs

## Future Allocation of State Funds, Baseline Scenario

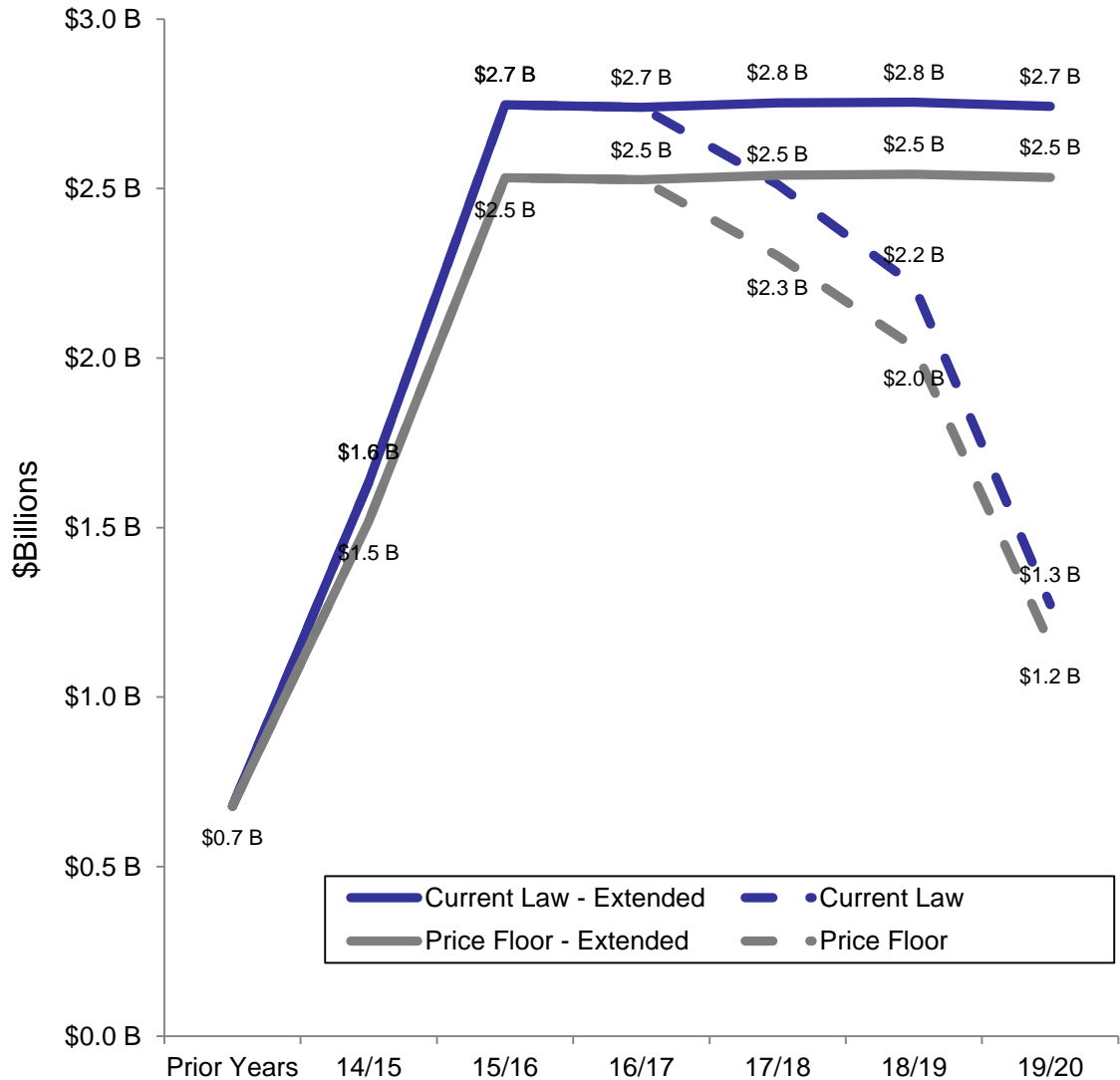


## Key Observations

- We estimate utilities will receive an average of 34 percent of the state auction revenues, while state programs will receive 66 percent
- Among state programs, current law establishes continuous appropriation for four programs, High Speed Rail (25 percent), Affordable Housing & Sustainable Communities (20 percent), Transit & Intercity Rail Capital Program (10 percent) and Low Carbon Transit Operations (five percent), which combine for 60 percent of the state's share of auction revenues
- The remaining 40 percent is to be allocated annually to programs, which may or may not include programs funded in the 2014-15 budget year

# We conservatively estimate state auction revenues will reach \$2.8 billion

## Auction Revenues (by budget year) – Conservative Estimate



## Key Observations

- We estimate the amount available in future years will increase significantly as the cap broadens to cover more areas and fewer credits are allocated freely
- This should be considered a conservative estimate. It is possible and, many believe quite likely, that auction settlement prices will grow rapidly as the cap tightens
- While this likely underestimates the costs to California businesses, it represents a reasonable basis for budgeting, given the substantial potential harms of overestimating revenue
- Credits available for purchase at each auction are planned by ARB, we estimate the settlement price based on the future reserve prices and the average difference between reserve and settlement prices to date

## Guidelines and Methodology (1 of 5)

| Program   | Guidelines  | Methodology   | Data Source  |
|---|---|---|--|
| Transit and Intercity Rail Capital Program (CalSTA) | <ul style="list-style-type: none"> <li>▪ Fund capital and operational improvements of existing transit to reduce emissions, expand use, enhance integration and improve safety. Fifty percent Disadvantaged (DA)</li> </ul>   | <ul style="list-style-type: none"> <li>▪ We assume 50 percent of funds will be distributed based on farebox revenue from existing transit and 50 percent of revenues will match the CalEnviroScreen Top 25 percent distribution</li> </ul>  | <ul style="list-style-type: none"> <li>▪ National Transit Database (2012) RY 2012 Database</li> <li>▪ CalEnviroScreen v2.0. 10/14</li> </ul>   |
| Low Carbon Transit Operations (CalTrans)            | <ul style="list-style-type: none"> <li>▪ Funds are available to support transit operations. Statute stipulates that funds are distributed in part based on existing transit and in part based on population.</li> </ul>   | <ul style="list-style-type: none"> <li>▪ We use the distribution calculated by the Controller's Office (SCO).</li> <li>▪ When the SCO assigned funds to a multi-county agency we distributed funds:               <ol style="list-style-type: none"> <li>1. Between agencies based on farebox revenues</li> <li>2. Between counties by total rail mileage for rail and equally for other systems</li> </ol> </li> </ul> | <ul style="list-style-type: none"> <li>▪ State Controller's Office (2014) Low Carbon Transit Operations Program Eligible Allocation Fiscal Year 2014-2015 Summary</li> <li>▪ National Transit Database (2012) RY 2012 Database</li> <li>▪ Metropolitan Transit Commission (2008) Bay Area Transit Shape files</li> </ul> |
| <b>Sustainable Development (SGC)</b>                |   |   |  |
| Affordable Housing and Sustainable Communities      | <ul style="list-style-type: none"> <li>▪ Two project types: (A) Transit Oriented Development Project Areas (TOD) or (B) Integrated Connectivity Projects (ICP). To fund planning, development and infrastructure near existing transit. Fifty percent DA</li> </ul> | <ul style="list-style-type: none"> <li>▪ We assume 50 percent of funds will be distributed based on farebox revenue from existing transit and 50 percent of revenues will match the CalEnviroScreen Top 25 percent distribution</li> </ul>  | <ul style="list-style-type: none"> <li>▪ National Transit Database (2012) RY 2012 Database</li> <li>▪ CalEnviroScreen v2.0. 10/14</li> </ul>   |
| Sustainable Agricultural Lands Conservation Program | <ul style="list-style-type: none"> <li>▪ Fund conservation of agricultural land, especially in areas that would potentially be developed as suburban sprawl</li> </ul>  | <ul style="list-style-type: none"> <li>▪ We estimate agricultural land at risk of development by multiplying the portion of each county that is urbanized by its agricultural acreage</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Census (2010) Census Urban and Rural Classification and Urban Area Criteria</li> <li>▪ Farm Service Agency (2014) FSA Crop Acreage Data Reported to FSA</li> </ul>  |

## Guidelines and Methodology (2 of 5)

| Program  | Guidelines  | Methodology   | Data Source  |
|--|---|---|--|
| Low Carbon Transportation (ARB)                                  |   |   |  |
| Clean Vehicle Rebate Project                                     | <ul style="list-style-type: none"> <li>▪ Rebates are available on an ongoing basis for eligible vehicles within California</li> </ul>   | <ul style="list-style-type: none"> <li>▪ This is an ongoing program, we assume the distribution will match that in previous years</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Center for Sustainable Energy (2014). CARB CVRP, Rebate Statistics. Updated 12/15/14</li> </ul>   |
| Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project | <ul style="list-style-type: none"> <li>▪ Rebates are available on an ongoing basis for eligible vehicles within California</li> </ul>   | <ul style="list-style-type: none"> <li>▪ This is an ongoing program, we assume the distribution will match that in previous years</li> </ul>  | <ul style="list-style-type: none"> <li>▪ California Air Resources Board (2015) All redeemed vouchers with ARB funding (inception through December 31, 2014) by Manufacturer and County</li> </ul>    |
| Pilot and Freight Demonstration Projects                         | <ul style="list-style-type: none"> <li>▪ Currently in workgroup stage, guidelines not yet developed. On hundred percent DA</li> </ul>   | <ul style="list-style-type: none"> <li>▪ We assume the distribution will match the CalEnviroScreen Top 25 percent distribution</li> </ul>   | <ul style="list-style-type: none"> <li>▪ Office of Environmental Health Hazard Assessment (2014) CalEnviroScreen v2.0. 10/14</li> </ul>  |
| Weatherization & Renewable Energy (CSD)                          | <ul style="list-style-type: none"> <li>▪ Expands current program providing weatherization upgrades and solar installations to low income communities. Funds distributed based on Low Income population, energy costs and weather. One hundred percent DA</li> </ul> | <ul style="list-style-type: none"> <li>▪ We calculated the funds per capita each county received in previous years</li> <li>▪ We multiplied that by the each county's DA population</li> <li>▪ We then calculated the share of total funding each should receive</li> </ul> | <ul style="list-style-type: none"> <li>▪ California Department of Community Services &amp; Development (2012) Statewide Weatherized Homes Breakout</li> <li>▪ CalEnviroScreen v2.0. 10/14</li> </ul> |
| Energy Efficiency in Public Buildings (CEC)                      | <ul style="list-style-type: none"> <li>▪ Loans will be made based on a first come application process. State buildings are eligible, including DGS, CSU, UC and CDCR.</li> </ul>  | <ul style="list-style-type: none"> <li>▪ We assume funding will be distributed based on the square footage of state owned buildings</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Department of General Services (2014) Statewide Property Inventory. Received 11/24/14</li> </ul>  |

## Guidelines and Methodology (3 of 5)

| Program   | Guidelines   | Methodology  | Data Source   |
|---|--|--|---|
| Agricultural Energy and Operational Efficiency (CDFA) |  |  |   |
| Dairy Digesters                                       | <ul style="list-style-type: none"> <li>Grants to fund dairy digesters that use livestock manure to produce methane, which is a renewable source of electrical energy generation and transportation fuel</li> </ul> | <ul style="list-style-type: none"> <li>We assume the funds will be distributed relative to each county's share of cattle within the San Joaquin Valley</li> </ul>  | <ul style="list-style-type: none"> <li>California Department of Food and Agriculture (2012) California Milk Production, by County</li> <li>Limited to San Joaquin Valley based on advice of ARB &amp; CDFA staff</li> </ul>   |
| Water Use   | <ul style="list-style-type: none"> <li>Grants to fund agricultural irrigation and distribution improvements that lower energy use and GHG emissions</li> </ul>   | <ul style="list-style-type: none"> <li>We assume the funds will be distributed relative to each county's share of agricultural water withdrawals</li> </ul>  | <ul style="list-style-type: none"> <li>United States Geological Survey (2010) Water Use Data for California</li> </ul>  |
| Water Action Plan - Water-Energy Efficiency (DWR)     |  |  |   |
| Energy Efficiency Grants                              | <ul style="list-style-type: none"> <li>Grants to implement water efficiency programs. Applications ranked based on Water Saved, Energy Saved and presence in a DA community</li> </ul>                             | <ul style="list-style-type: none"> <li>We assume funds will be distributed within DA populations</li> <li>We estimate distribution by multiplying county DA population by county per capita water usage</li> </ul> | <ul style="list-style-type: none"> <li>U.S. Geological Survey (2010) Water Use in the United States</li> <li>Office of Environmental Health Hazard Assessment (2014) CalEnviroScreen v2.0. 10/14</li> <li>DWR staff indicated it is likely most or all funds may be directed to DA communities based on the large number of applicants</li> </ul> |
| Efficient Turbine Funding                             | <ul style="list-style-type: none"> <li>Funding has been distributed</li> </ul>   | <ul style="list-style-type: none"> <li>Location of installation</li> </ul>   | <ul style="list-style-type: none"> <li>Information provided by Air Resources Board staff</li> </ul>   |
| Wetlands and Watershed Restoration (DFW)              | <ul style="list-style-type: none"> <li>Proposals to fund wetland restoration projects. Application based on efficacy, efficiency verifiability and qualifications</li> </ul>                                       | <ul style="list-style-type: none"> <li>We assume the funds will be distributed relative to each county's share of existing wetland project proposals</li> </ul>  | <ul style="list-style-type: none"> <li>California Wetlands Monitoring Workgroup (CWMW). "Wetland Projects." EcoAtlas</li> </ul>   |

## Guidelines and Methodology (4 of 5)

| Program                       | Guidelines  | Methodology   | Data Source   |
|-------------------------------|---|---|---|
| Sustainable Forests (CalFire) |   |   |   |
| Urban Forests                 | <ul style="list-style-type: none"> <li>Five grant programs, includes: urban tree planting; urban forest management; urban biomass utilization; urban reclamation; and other forward thinking projects. One hundred percent DA</li> </ul>                                    | <ul style="list-style-type: none"> <li>We assume the distribution will match the CalEnviroScreen Top 25 percent distribution</li> </ul>   | <ul style="list-style-type: none"> <li>Office of Environmental Health Hazard Assessment (2014) CalEnviroScreen v2.0. 10/14</li> </ul> |
| Risk Reduction                | <ul style="list-style-type: none"> <li>Forestlands eligible for funding, quantifiable. Priority to projects which utilize wood products; are included in a local fire protection plan; provide wildfire protection of human infrastructure and other co-benefits</li> </ul> | <ul style="list-style-type: none"> <li>We assume funds will be distributed in forested areas and use Fire Hazard data as proxy</li> </ul> | <ul style="list-style-type: none"> <li>CalFire (2007) California Fire Hazard Severity Zone Map Update Project</li> </ul>              |
| Waste Diversion (CalRecycle)  |   |   |   |
| Organics grants               | <ul style="list-style-type: none"> <li>Funding has been distributed</li> </ul>  | <ul style="list-style-type: none"> <li>Distribution of grant funds by county</li> </ul>   | <ul style="list-style-type: none"> <li>Recycled Fiber, Plastic, and Glass Grant Program (FPG1) 2014-15 Grant Cycle Report</li> </ul>  |
| Recycling grants              | <ul style="list-style-type: none"> <li>Funding has been distributed</li> </ul>  | <ul style="list-style-type: none"> <li>Distribution of grant funds by county</li> </ul>   | <ul style="list-style-type: none"> <li>Organics Grant Program (ORG1) 2014-15 Grant Cycle Report</li> </ul>                            |
| Organics loans                | <ul style="list-style-type: none"> <li>Loans for construction, renovation or expansion of facilities in California that compost organics or provide similar services. Must result in GHG emission and landfill reductions.</li> </ul>                                       | <ul style="list-style-type: none"> <li>We assume funds will be distributed based on landfill tonnage</li> </ul>                           | <ul style="list-style-type: none"> <li>CalRecycle (2013) IWM Fee Assessment: Landfill Summary Tonnage Report</li> </ul>               |



## Guidelines and Methodology (5 of 5)

| Program         | Guidelines   | Methodology  | Data Source  |
|-----------------|--|--|--|
| High Speed Rail | <ul style="list-style-type: none"> <li>▪ Program is currently being implemented. Initial segment is being constructed in Fresno and Madera Counties, Phase 1 runs from Los Angeles to San Francisco</li> </ul> | <ul style="list-style-type: none"> <li>▪ Based on guidance of HSRA staff, we assumed funds will be distributed as followed:               <ol style="list-style-type: none"> <li>1. \$191.4 million for construction, divided evenly between Fresno and Madera Counties</li> <li>2. \$58.6 million for planning and development, divided evenly between counties covered by Phase 1</li> </ol> </li> </ul> | <ul style="list-style-type: none"> <li>▪ HSRA staff</li> </ul> |

# Conclusion

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- While significant uncertainty exists in every aspect of these estimates, it is likely that AB 32 Cap-and-Trade auctions will generate at least \$16 billion for state programs through 2020 and could generate substantially more
- While there are a number of reasonable ways to consider how funds might be distributed fairly across the state, it appears that current policy favors the southern Central Valley and several Bay Area counties but disfavors several other counties, including Los Angeles County
- As policy makers weigh their options moving forward, these estimates may be helpful in shaping the discussion
- In addition, policy makers may wish to consider the implications of a significant surplus in the enacted 2014-15 budget and the proposed 2015-16 budget

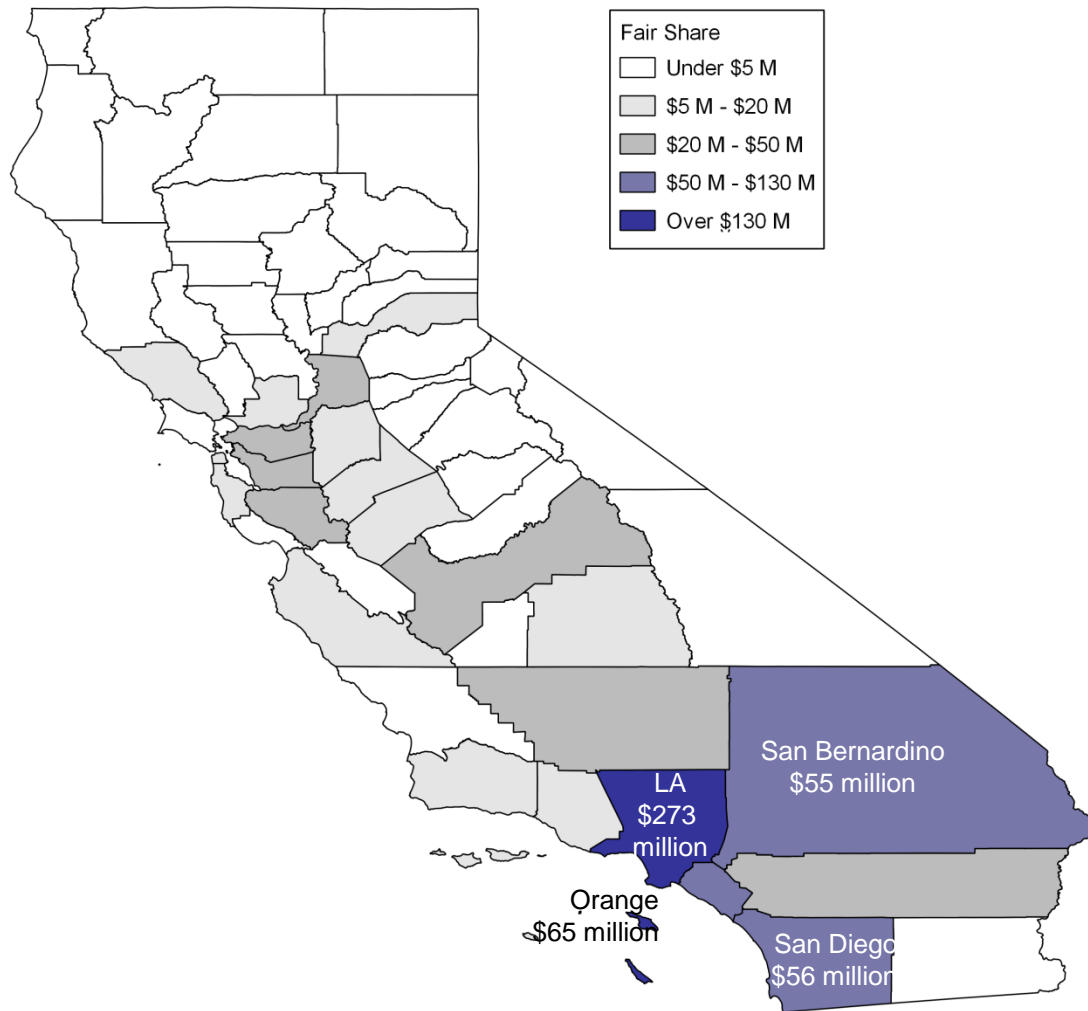
# Appendix

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- Appendix 1: Distributions
- Appendix 2: Fair Share Estimates
- Appendix 3: Program Estimates
- Appendix 4: Literature Review – Revenue Estimates
- Appendix 5: CalEnviroScreen
- Appendix 6: Acknowledgements

# Appendix 1a: Population Based Distribution – Fair Share

## Population Based Fair Share

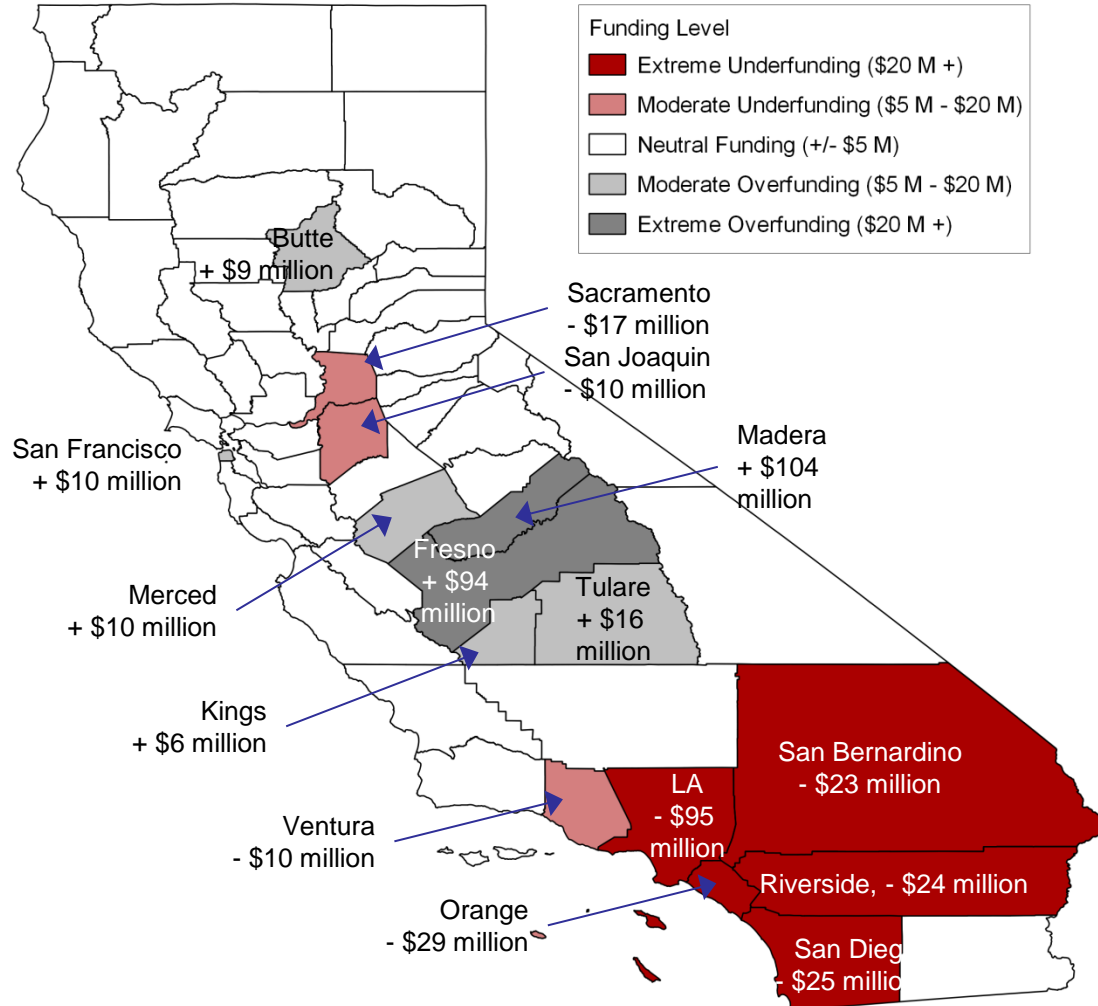


## Key Observations

- The “Population” Based methodology estimates that funds should disproportionately be spent in Southern California, the east Bay Area, along with Sacramento and Fresno
- The “Population” Based methodology estimates the distribution based on the principle that funding should be distributed evenly per capita. We assume 75 percent of funds should be distributed in this manner
- Based on SB 535, we assume that 25 percent of funds should be distributed based on each county’s share of disadvantaged population

# Appendix 1a: Population Based Distribution – Spending Gap

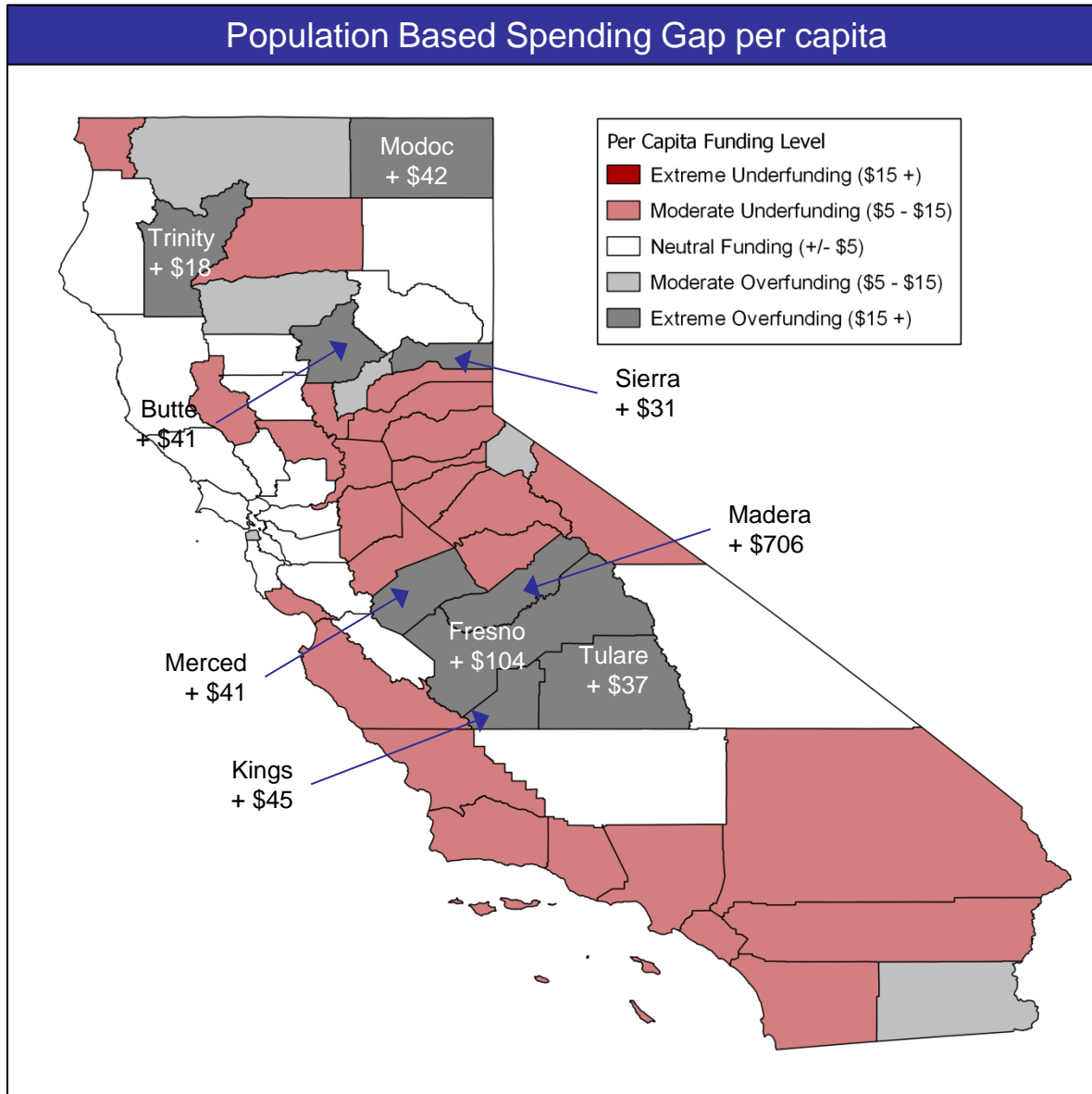
## Population Based Spending Gap



## Key Observations

- Based on the population share methodology, one region is highly overfunded relative to its fair share, based on population and CalEnviroScore:
  - The southern Central Valley will receive over \$200 million extra, although this is primarily due to short term spending, while constructing the initial segment of the High Speed Rail, with the largest share in Madera County. As the project continues, spending will migrate towards Los Angeles and the Bay Area
  - Butte County is also Moderately Overfunded. This is due to the expensive turbine upgrades at the Oroville Dam
- Two regions are highly underfunded:
  - Southern California, including Los Angeles, San Bernardino, Riverside, Ventura, Orange and San Diego are the most underfunded in the state, totaling over a \$200 million deficiency
  - Sacramento and San Joaquin Counties are each Moderately Underfunded as well

# Appendix 1a: Population Based Distribution – Spending Gap per capita

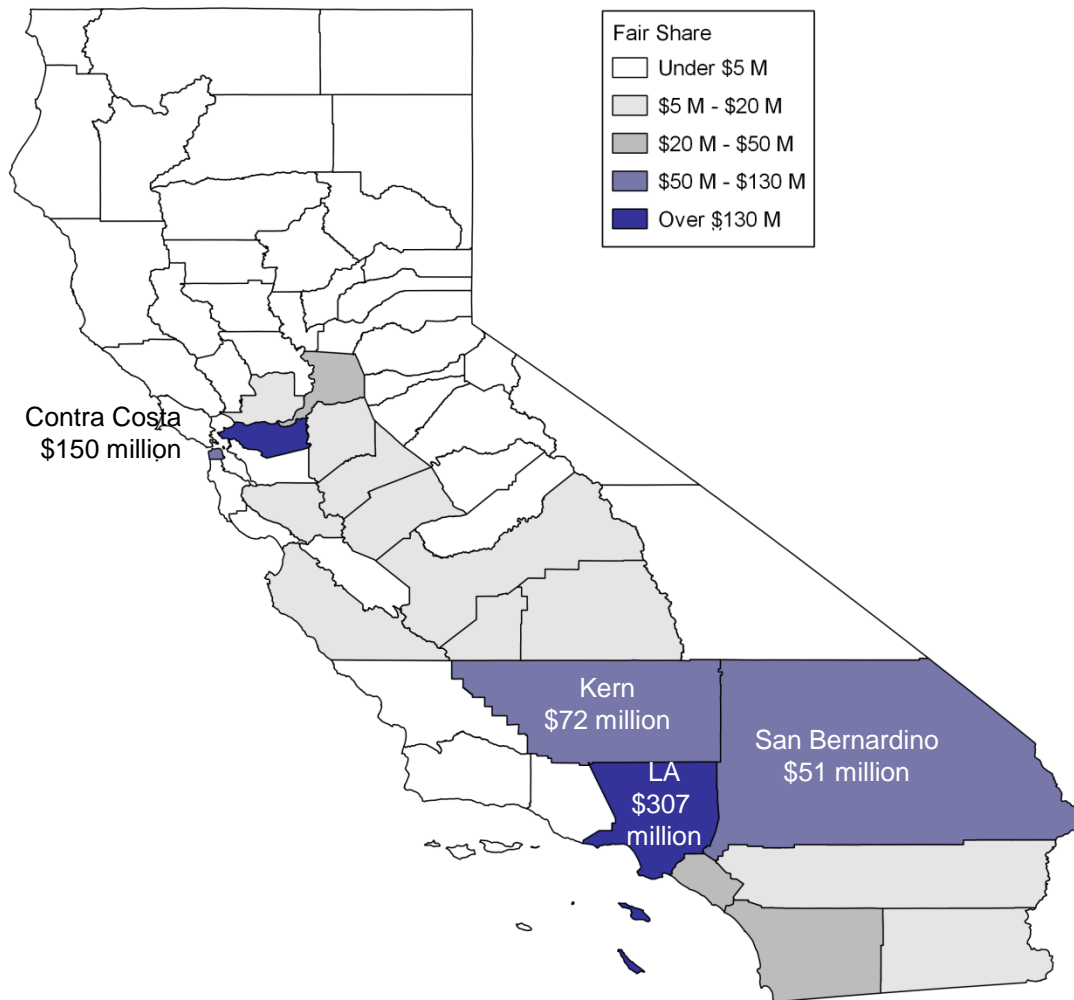


**Key Observations**

- Based on the population share methodology, one region is highly overfunded relative to its per capita fair share, based on population and CalEnviroScore:
  - The southern Central Valley is highly overfunded, although this is primarily due to short term spending, while constructing the initial segment of the High Speed Rail, with the largest share in Madera County. As the project continues, spending will migrate towards Los Angeles and the Bay Area
  - Several small northern counties are overfunded per capita, however, with the exception of Butte County, these do not amount to large amounts of money
- Two regions are moderately underfunded:
  - Southern California and the Central Coast
  - The northern Central Valley and Foothill regions

## Appendix 1b: Reductions Based Distribution – Fair Share

### Reductions Based Fair Share

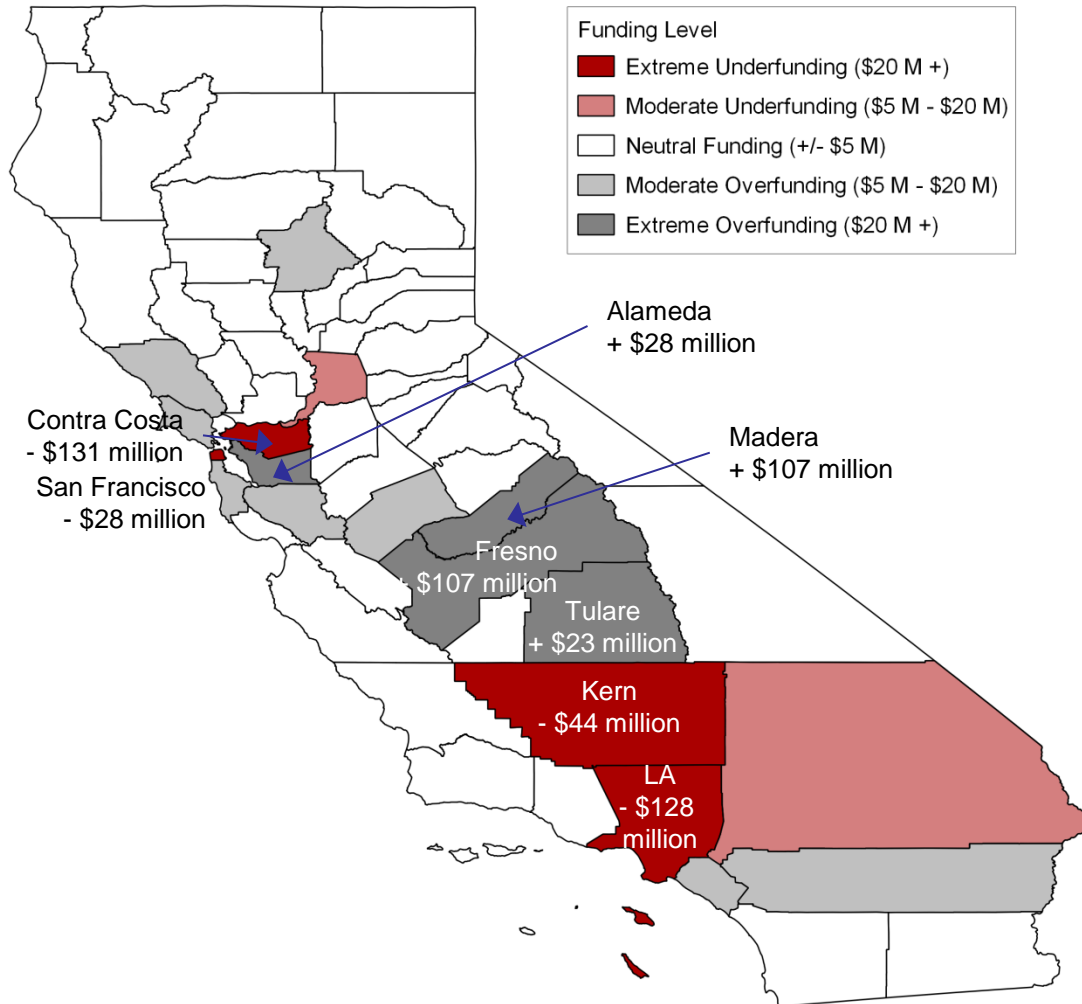


### Key Observations

- The “Reductions” Based methodology estimates that funds should disproportionately be spent in Los Angeles, San Bernardino, Kern and Contra Costs Counties
- The “Reductions” Based methodology estimates the distribution based on the principle that funding should be directed to areas where there is the most potential for reductions. We assume 75 percent of funds should be distributed in this manner
- As a proxy for payors, we use ARB Covered Emissions data
- Based on SB 535, we assume that 25 percent of funds should be distributed based on each county’s share of disadvantaged population

## Appendix 1b: Reductions Based Distribution – Spending Gap

### Reductions Based Spending Gap

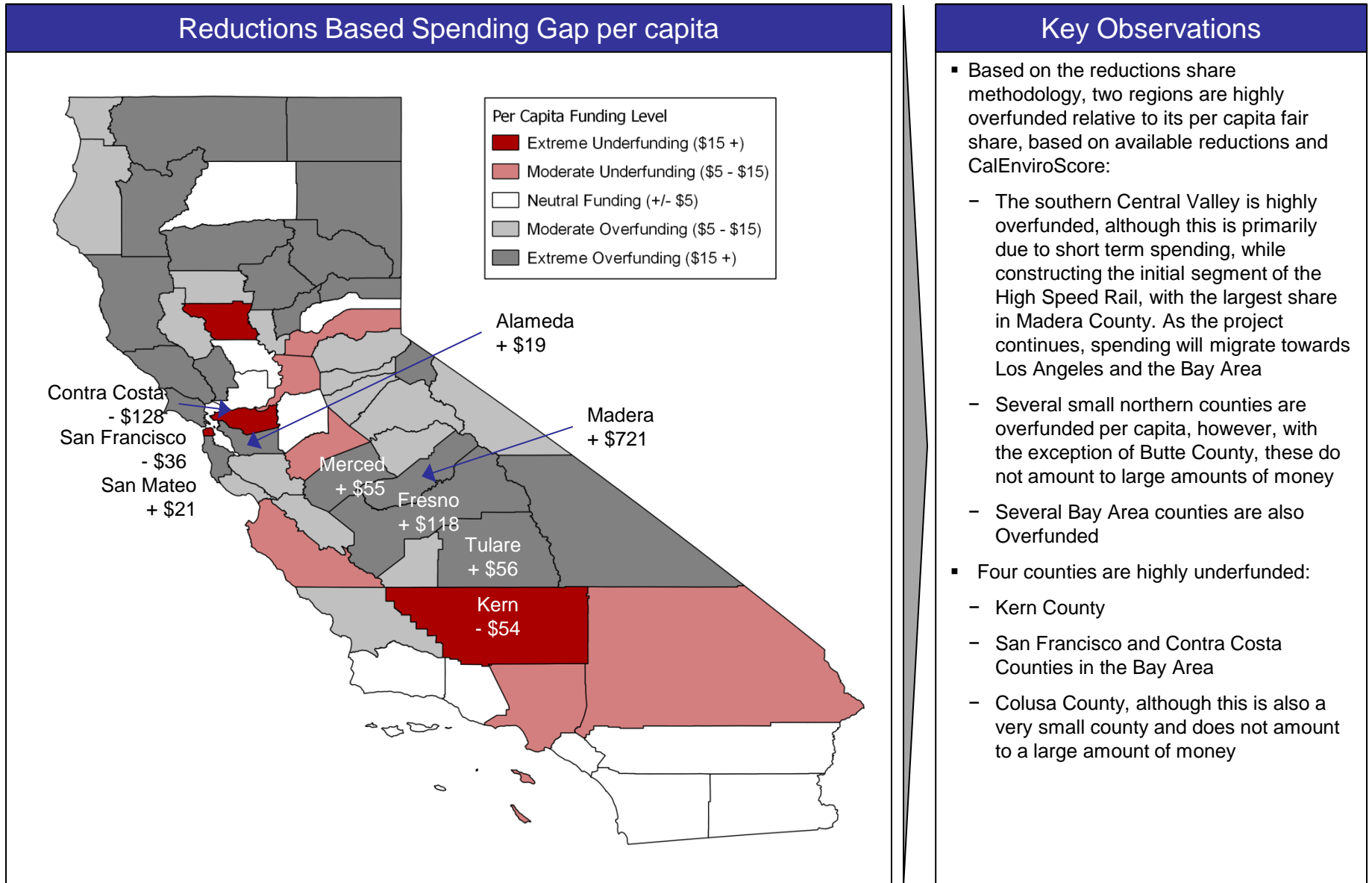


### Key Observations

- Based on the reductions share methodology, one region is highly overfunded relative to its fair share, based on available reductions and CalEnviroScore:
  - The southern Central Valley will receive over \$200 million extra, although this is primarily due to short term spending, while constructing the initial segment of the High Speed Rail, with the largest share in Madera County. As the project continues, spending will migrate towards Los Angeles and the Bay Area
  - Several Bay Area counties are also Overfunded
- Two regions are highly underfunded:
  - Southern California, including Los Angeles, San Bernardino and Kern Counties
  - San Francisco and Contra Costa Counties in the Bay Area

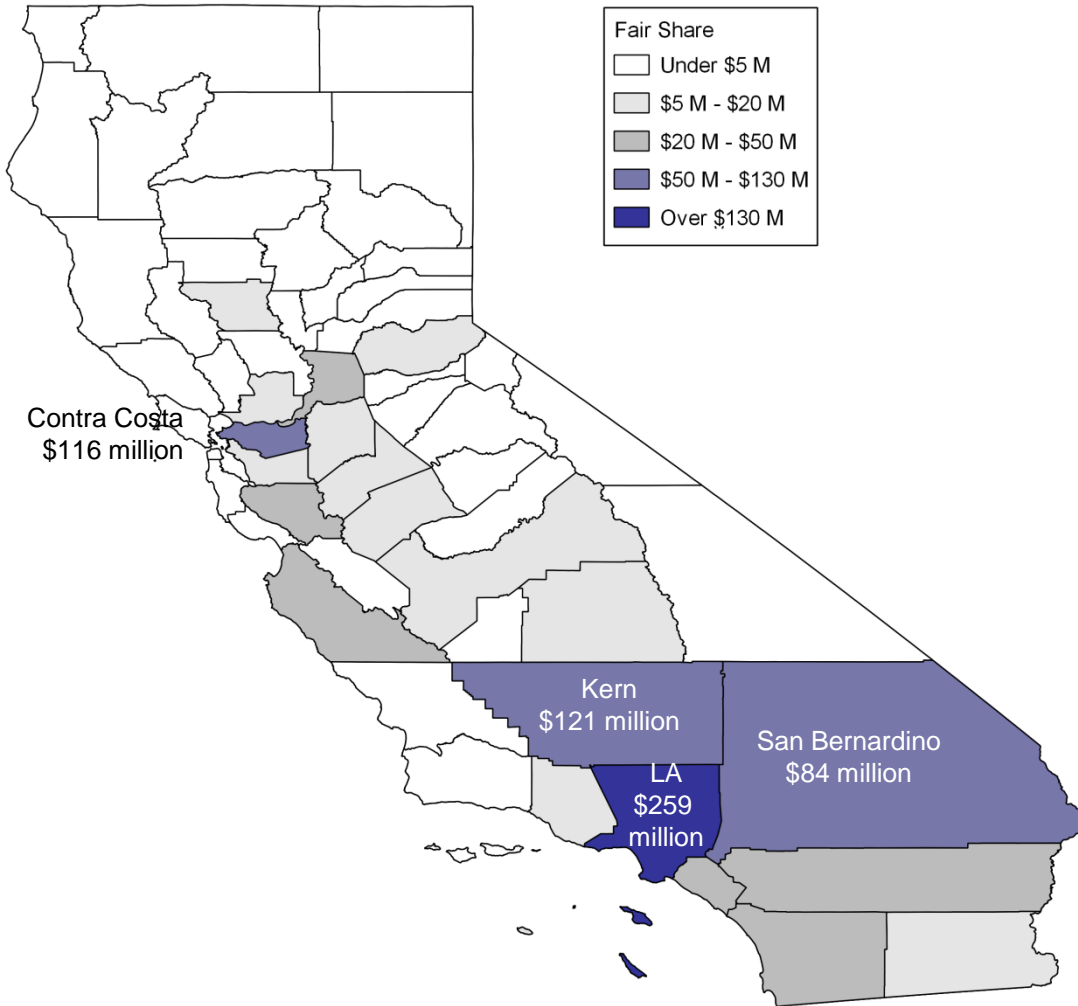


## Appendix 1b: Reductions Based Distribution – Spending Gap per capita



## Appendix 1c: Payor Based Distribution – Fair Share

### Payor Based Fair Share

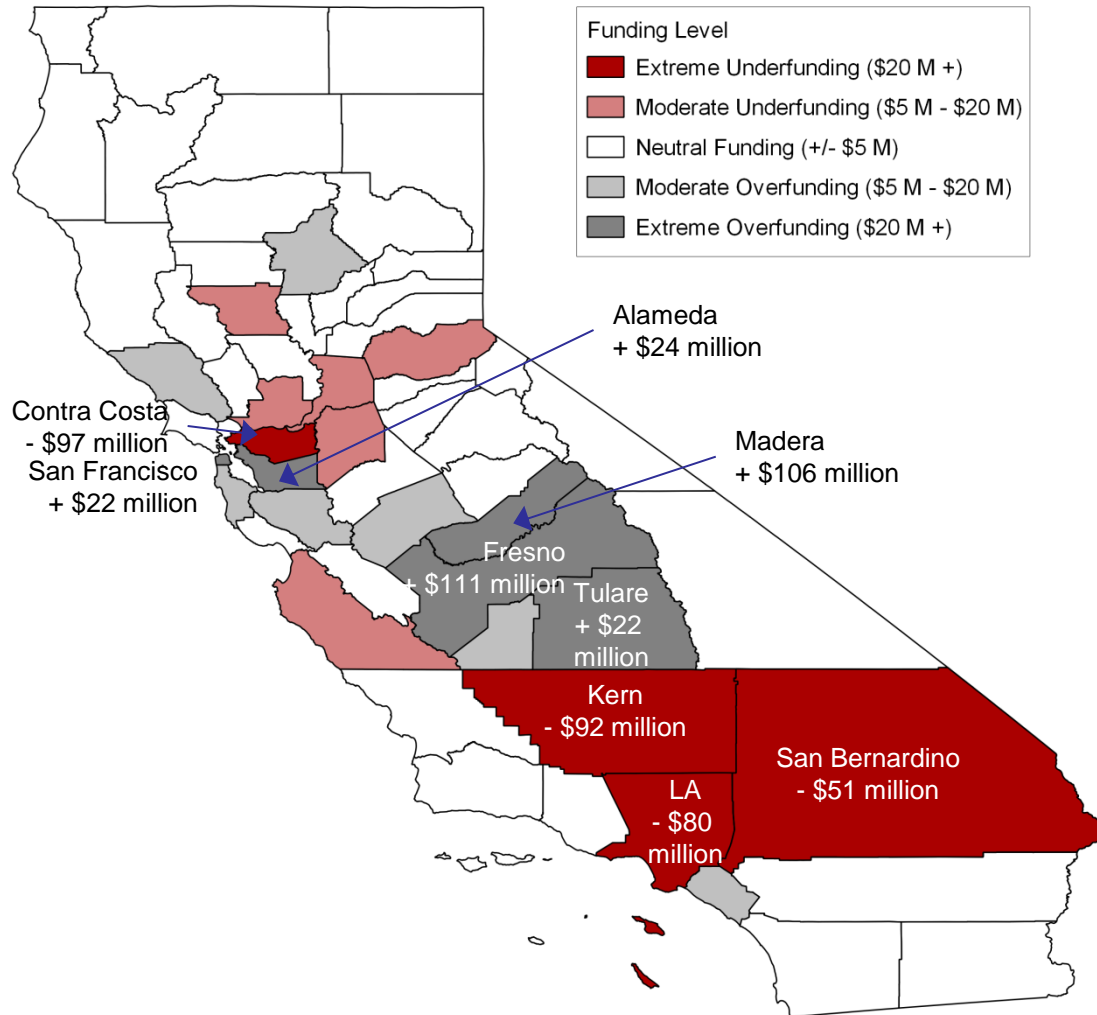


### Key Observations

- The “Payor” Based methodology estimates that funds should disproportionately be spent in Los Angeles, San Bernardino, Kern and Contra Costs Counties
- The “Payor” Based methodology estimates the distribution based on the principle that funding should be returned to areas where the funds were generated. We assume 75 percent of funds should be distributed in this manner
- As a proxy for payors, we use data corporate emissions
- Based on SB 535, we assume that 25 percent of funds should be distributed based on each county’s share of disadvantaged population

# Appendix 1c: Payor Based Distribution – Spending Gap

## Payor Based Spending Gap

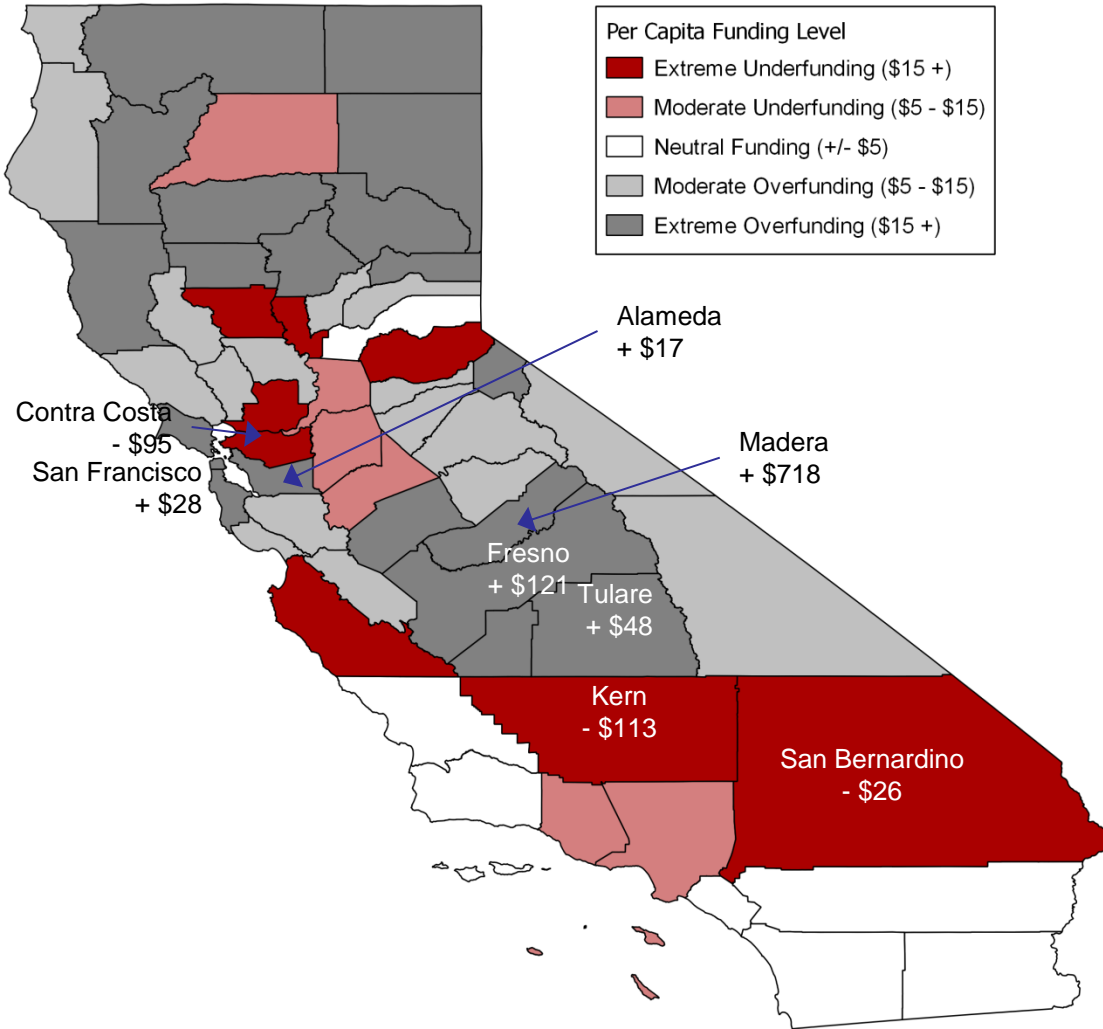


## Key Observations

- Based on the payor share methodology, one region is highly overfunded relative to its fair share, based on estimated cap-and-trade spending and CalEnviroScore:
  - The southern Central Valley will receive over \$200 million extra, although this is primarily due to short term spending, while constructing the initial segment of the High Speed Rail, with the largest share in Madera County. As the project continues, spending will migrate towards Los Angeles and the Bay Area
  - Several Bay Area counties are also Overfunded
- Two regions are highly underfunded:
  - Southern California, including Los Angeles, San Bernardino and Kern Counties
  - Contra Costa County and neighboring delta counties

# Appendix 1c: Payor Based Distribution – Spending Gap per capita

## Payor Based Spending Gap per capita



## Key Observations

- Based on the payor share methodology, one region is highly overfunded relative to its fair share per capita, based on estimated cap-and-trade spending and CalEnviroScore:
  - The southern Central Valley is highly overfunded, although this is primarily due to short term spending, while constructing the initial segment of the High Speed Rail, with the largest share in Madera County. As the project continues, spending will migrate towards Los Angeles and the Bay Area
  - Several small northern counties are overfunded per capita, however, with the exception of Butte County, these do not amount to large amounts of money
  - Several Bay Area counties are also Overfunded
- Two regions are highly underfunded:
  - Southern California, primarily San Bernardino and Kern Counties
  - Contra Costa County and neighboring delta counties
  - Several small northern counties are overfunded per capita, however, with the exception of Butte County, these do not amount to large amounts of money

## Appendix 2: Fair Share Estimates

| County       | Payor Share | Reductions Share | Population Share |
|--------------|-------------|------------------|------------------|
| Alameda      | \$8.3 M     | \$4.9 M          | \$29 M           |
| Alpine       | **          | **               | **               |
| Amador       | **          | **               | \$0.7 M          |
| Butte        | \$0.5 M     | \$0.3 M          | \$4.1 M          |
| Calaveras    | **          | **               | \$0.8 M          |
| Colusa       | \$6.6 M     | \$3 M            | \$0.4 M          |
| Contra Costa | \$115.4 M   | \$149.1 M        | \$20.9 M         |
| Del Norte    | **          | **               | \$0.5 M          |
| El Dorado    | \$7.9 M     | \$0.3 M          | \$3.2 M          |
| Fresno       | \$14.4 M    | \$17.3 M         | \$30.5 M         |
| Glenn        | **          | \$0.1 M          | \$0.5 M          |
| Humboldt     | \$1.1 M     | \$0.4 M          | \$2.4 M          |
| Imperial     | \$5.9 M     | \$6.4 M          | \$4.6 M          |
| Inyo         | \$0.1 M     | **               | \$0.3 M          |
| Kern         | \$120.1 M   | \$72.1 M         | \$24.3 M         |
| Kings        | \$3.8 M     | \$9.6 M          | \$4.1 M          |
| Lake         | **          | **               | \$1.1 M          |
| Lassen       | **          | **               | \$0.6 M          |
| Los Angeles  | \$257.6 M   | \$305.5 M        | \$272.3 M        |
| Madera       | \$3 M       | \$2.5 M          | \$4.7 M          |
| Marin        | \$0.7 M     | **               | \$4.4 M          |
| Mariposa     | **          | **               | \$0.3 M          |
| Mendocino    | \$0.1 M     | **               | \$1.5 M          |
| Merced       | \$6.1 M     | \$5.4 M          | \$8.7 M          |
| Modoc        | \$0.2 M     | \$0.1 M          | \$0.2 M          |
| Mono         | **          | **               | \$0.2 M          |
| Monterey     | \$20.6 M    | \$8.7 M          | \$8 M            |
| Napa         | \$0.3 M     | **               | \$2.4 M          |
| Nevada       | **          | \$0.1 M          | \$1.7 M          |

| County          | Payor Share | Reductions Share | Population Share |
|-----------------|-------------|------------------|------------------|
| Orange          | \$22.2 M    | \$28.6 M         | \$64.5 M         |
| Placer          | \$1.7 M     | \$4.8 M          | \$5.9 M          |
| Plumas          | **          | **               | \$0.4 M          |
| Riverside       | \$23.7 M    | \$18.4 M         | \$49.4 M         |
| Sacramento      | \$20.2 M    | \$25.8 M         | \$29.2 M         |
| San Benito      | **          | **               | \$1 M            |
| San Bernardino  | \$83.9 M    | \$50.6 M         | \$55.3 M         |
| San Diego       | \$30.2 M    | \$32 M           | \$56.1 M         |
| San Francisco   | \$2.4 M     | \$52.5 M         | \$14.2 M         |
| San Joaquin     | \$14.7 M    | \$8.7 M          | \$18.7 M         |
| San Luis Obispo | \$2 M       | \$0.9 M          | \$4.7 M          |
| San Mateo       | \$1.7 M     | \$1.1 M          | \$12.8 M         |
| Santa Barbara   | \$3.4 M     | \$1.6 M          | \$7.6 M          |
| Santa Clara     | \$23.7 M    | \$14.3 M         | \$33.2 M         |
| Santa Cruz      | \$0.4 M     | \$0.2 M          | \$4.7 M          |
| Shasta          | \$3.3 M     | \$1.5 M          | \$3.1 M          |
| Sierra          | **          | **               | **               |
| Siskiyou        | **          | **               | \$0.8 M          |
| Solano          | \$16.8 M    | \$8 M            | \$7.5 M          |
| Sonoma          | \$0.9 M     | **               | \$8.4 M          |
| Stanislaus      | \$13.9 M    | \$13.2 M         | \$14.6 M         |
| Sutter          | \$3.4 M     | **               | \$1.7 M          |
| Tehama          | \$0.6 M     | \$0.2 M          | \$1.2 M          |
| Trinity         | **          | **               | \$0.2 M          |
| Tulare          | \$9.1 M     | \$7.1 M          | \$14 M           |
| Tuolumne        | **          | **               | \$1 M            |
| Ventura         | \$9.3 M     | \$3.9 M          | \$15.1 M         |
| Yolo            | \$1.2 M     | \$3 M            | \$3.9 M          |
| Yuba            | \$1.4 M     | \$0.7 M          | \$1.5 M          |

\*\* Indicates less than \$100,000

# Appendix 3: Program Estimates, Page 1 of 4

| County      | HSRA      | CVRP     | HVIP    | ARB Pilots | SGC 1    | SGC 2 | CSD      | CalFire1 | CalFire2 | CalSTA  |
|-------------|-----------|----------|---------|------------|----------|-------|----------|----------|----------|---------|
| Alameda     | **        | \$9.3 M  | **      | \$1 M      | \$9.1 M  | **    | **       | **       | **       | \$2.7 M |
| Alpine      | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Amador      | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Butte       | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Calaveras   | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Colusa      | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| C. Costa    | **        | \$4.3 M  | **      | \$1 M      | \$5.8 M  | **    | \$1.4 M  | **       | **       | \$1.7 M |
| Del Norte   | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| El Dorado   | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Fresno      | \$101.6 M | **       | **      | \$5.3 M    | \$4.4 M  | **    | **       | \$1.2 M  | **       | **      |
| Glenn       | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Humboldt    | **        | **       | **      | **         | **       | **    | **       | **       | \$1.5 M  | **      |
| Imperial    | **        | **       | **      | **         | **       | **    | \$2.9 M  | **       | **       | **      |
| Inyo        | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Kern        | \$5.9 M   | **       | **      | \$3.6 M    | \$2.9 M  | **    | \$7.3 M  | **       | **       | **      |
| Kings       | \$5.9 M   | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Lake        | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Lassen      | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Los Angeles | \$5.9 M   | \$28.4 M | \$2.5 M | \$36.6 M   | \$45.8 M | **    | \$22.4 M | \$8.3 M  | **       | \$8.5 M |
| Madera      | \$101.6 M | **       | **      | **         | **       | **    | \$3.7 M  | **       | **       | **      |
| Marin       | **        | \$1.9 M  | **      | **         | \$1.1 M  | **    | **       | **       | **       | **      |
| Mariposa    | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Mendocino   | **        | **       | **      | **         | **       | **    | **       | **       | \$1.7 M  | **      |
| Merced      | \$5.9 M   | **       | **      | \$1.6 M    | \$1.3 M  | **    | \$4.4 M  | **       | **       | **      |
| Modoc       | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Mono        | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Monterey    | **        | **       | **      | **         | **       | **    | **       | **       | \$1.1 M  | **      |
| Napa        | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |
| Nevada      | **        | **       | **      | **         | **       | **    | **       | **       | **       | **      |

\*\* Indicates less than \$100,000

## Appendix 3: Program Estimates, Page 2 of 4

| County       | HSRA    | CVRP     | HVIP  | ARB Pilots | SGC 1   | SGC 2 | CSD      | CalFire1 | CalFire2 | CalSTA  |
|--------------|---------|----------|-------|------------|---------|-------|----------|----------|----------|---------|
| Orange       | **      | \$12.4 M | \$1 M | \$4.4 M    | \$6 M   | **    | \$3.1 M  | \$1 M    | **       | \$1.2 M |
| Placer       | **      | **       | **    | **         | **      | **    | **       | **       | **       | **      |
| Plumas       | **      | **       | **    | **         | **      | **    | **       | **       | **       | **      |
| Riverside    | **      | \$2.5 M  | **    | \$4.4 M    | \$4.1 M | **    | \$5.2 M  | \$1 M    | \$1.2 M  | **      |
| Sacramento   | **      | \$2.3 M  | **    | \$1.7 M    | \$2.4 M | **    | \$1.1 M  | **       | **       | **      |
| San Benito   | **      | **       | **    | **         | **      | **    | **       | **       | **       | **      |
| S. Bernardin | **      | \$1.9 M  | **    | \$7.3 M    | \$6.4 M | **    | \$7.9 M  | \$1.7 M  | **       | **      |
| San Diego    | **      | \$10 M   | **    | **         | \$5.2 M | **    | **       | **       | \$1 M    | \$1.5 M |
| S. Francisco | \$5.9 M | \$2.6 M  | **    | **         | \$9.7 M | **    | **       | **       | **       | \$3 M   |
| San Joaquin  | **      | **       | **    | \$2.5 M    | \$2.1 M | **    | **       | **       | **       | **      |
| SL Obispo    | **      | **       | **    | **         | **      | **    | **       | **       | \$1.3 M  | **      |
| San Mateo    | \$5.9 M | \$4.8 M  | **    | **         | \$2.7 M | **    | **       | **       | **       | **      |
| S. Barbara   | **      | **       | **    | **         | **      | **    | **       | **       | **       | **      |
| Santa Clara  | \$5.9 M | \$17.6 M | **    | **         | \$2.9 M | **    | **       | **       | **       | **      |
| Santa Cruz   | **      | \$1.1 M  | **    | **         | **      | **    | **       | **       | **       | **      |
| Shasta       | **      | **       | **    | **         | **      | **    | **       | **       | \$1.3 M  | **      |
| Sierra       | **      | **       | **    | **         | **      | **    | **       | **       | **       | **      |
| Siskiyou     | **      | **       | **    | **         | **      | **    | **       | **       | \$1.2 M  | **      |
| Solano       | **      | **       | **    | **         | **      | **    | **       | **       | **       | **      |
| Sonoma       | **      | \$1.8 M  | **    | **         | **      | **    | **       | **       | **       | **      |
| Stanislaus   | **      | **       | **    | \$2 M      | \$1.7 M | **    | **       | **       | **       | **      |
| Sutter       | **      | **       | **    | **         | **      | **    | **       | **       | **       | **      |
| Tehama       | **      | **       | **    | **         | **      | **    | **       | **       | **       | **      |
| Trinity      | **      | **       | **    | **         | **      | **    | **       | **       | **       | **      |
| Tulare       | \$5.9 M | **       | **    | \$2.3 M    | \$1.8 M | **    | \$10.2 M | **       | **       | **      |
| Tuolumne     | **      | **       | **    | **         | **      | **    | **       | **       | **       | **      |
| Ventura      | **      | \$2.2 M  | **    | **         | **      | **    | **       | **       | **       | **      |
| Yolo         | **      | **       | **    | **         | **      | **    | **       | **       | **       | **      |
| Yuba         | **      | **       | **    | **         | **      | **    | \$1.4 M  | **       | **       | **      |

\*\* Indicates less than \$100,000

## Appendix 3: Program Estimates, Page 3 of 4

| County      | CalTrans | DFW     | CalRec 1 | CalRec 2 | CEC     | CDFA 1  | CDFA 2  | DWR 1   | DWR 2  | Total     |
|-------------|----------|---------|----------|----------|---------|---------|---------|---------|--------|-----------|
| Alameda     | \$2.2 M  | \$1.1 M | \$3 M    | **       | \$1.1 M | **      | **      | **      | **     | \$32.8 M  |
| Alpine      | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| Amador      | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| Butte       | **       | **      | **       | **       | **      | **      | **      | **      | \$11 M | \$13.2 M  |
| Calaveras   | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| Colusa      | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| C. Costa    | \$1.4 M  | \$2.1 M | **       | **       | **      | **      | **      | **      | **     | \$18.4 M  |
| Del Norte   | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| El Dorado   | **       | **      | **       | **       | **      | **      | **      | **      | **     | \$2 M     |
| Fresno      | **       | **      | \$3 M    | **       | **      | **      | \$1.1 M | \$3.2 M | **     | \$124.8 M |
| Glenn       | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| Humboldt    | **       | **      | **       | **       | **      | **      | **      | **      | **     | \$2 M     |
| Imperial    | **       | **      | **       | **       | **      | **      | **      | **      | **     | \$5.8 M   |
| Inyo        | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| Kern        | **       | **      | **       | **       | **      | \$1.2 M | **      | \$1.8 M | **     | \$28.1 M  |
| Kings       | **       | **      | **       | **       | **      | \$1.3 M | **      | **      | **     | \$10.6 M  |
| Lake        | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| Lassen      | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| Los Angeles | \$7.1 M  | **      | \$4 M    | **       | \$3.9 M | **      | **      | \$2.3 M | **     | \$177.7 M |
| Madera      | **       | **      | **       | **       | **      | **      | **      | **      | **     | \$109 M   |
| Marin       | **       | \$1.6 M | **       | **       | **      | **      | **      | **      | **     | \$5.6 M   |
| Mariposa    | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| Mendocino   | **       | **      | **       | **       | **      | **      | **      | **      | **     | \$1.9 M   |
| Merced      | **       | **      | **       | **       | **      | \$2.4 M | **      | \$1.8 M | **     | \$19.1 M  |
| Modoc       | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| Mono        | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |
| Monterey    | **       | **      | **       | **       | **      | **      | **      | **      | **     | \$3.9 M   |
| Napa        | **       | \$1.2 M | **       | **       | **      | **      | **      | **      | **     | \$2.2 M   |
| Nevada      | **       | **      | **       | **       | **      | **      | **      | **      | **     | **        |

\*\* Indicates less than \$100,000



## Appendix 3: Program Estimates, Page 4 of 4

| County       | CalTrans | DFW     | CalRec 1 | CalRec 2 | CEC     | CDFA 1  | CDFA 2  | DWR 1   | DWR 2 | Total    |
|--------------|----------|---------|----------|----------|---------|---------|---------|---------|-------|----------|
| Orange       | \$1.3 M  | **      | \$2.9 M  | **       | **      | **      | **      | **      | **    | \$35.5 M |
| Placer       | **       | **      | **       | **       | **      | **      | **      | **      | **    | \$1.7 M  |
| Plumas       | **       | **      | **       | **       | **      | **      | **      | **      | **    | **       |
| Riverside    | **       | **      | \$3 M    | **       | **      | **      | **      | **      | **    | \$25.4 M |
| Sacramento   | **       | **      | **       | **       | \$2.2 M | **      | **      | **      | **    | \$12 M   |
| San Benito   | **       | **      | **       | **       | **      | **      | **      | **      | **    | **       |
| S. Bernardin | **       | **      | \$2.6 M  | **       | **      | **      | **      | **      | **    | \$32.6 M |
| San Diego    | \$1.6 M  | \$7 M   | **       | **       | \$1.6 M | **      | **      | **      | **    | \$31.1 M |
| S. Francisco | \$2.2 M  | **      | **       | **       | **      | **      | **      | **      | **    | \$24.4 M |
| San Joaquin  | **       | **      | **       | **       | **      | **      | **      | \$1.3 M | **    | \$8.8 M  |
| SL Obispo    | **       | **      | **       | **       | **      | **      | **      | **      | **    | \$2.9 M  |
| San Mateo    | \$1.1 M  | **      | **       | **       | **      | **      | **      | **      | **    | \$16.2 M |
| S. Barbara   | **       | **      | **       | **       | **      | **      | **      | **      | **    | \$3 M    |
| Santa Clara  | \$1.4 M  | \$1.6 M | **       | **       | **      | **      | **      | **      | **    | \$33.6 M |
| Santa Cruz   | **       | **      | **       | **       | **      | **      | **      | **      | **    | \$2.4 M  |
| Shasta       | **       | **      | **       | **       | **      | **      | **      | **      | **    | \$1.8 M  |
| Sierra       | **       | **      | **       | **       | **      | **      | **      | **      | **    | **       |
| Siskiyou     | **       | **      | **       | **       | **      | **      | **      | **      | **    | \$1.4 M  |
| Solano       | **       | \$4.4 M | **       | **       | **      | **      | **      | **      | **    | \$7 M    |
| Sonoma       | **       | \$3.7 M | **       | **       | **      | **      | **      | **      | **    | \$7.2 M  |
| Stanislaus   | **       | **      | **       | **       | **      | \$1.6 M | **      | \$1.3 M | **    | \$9.8 M  |
| Sutter       | **       | **      | **       | **       | **      | **      | **      | **      | **    | **       |
| Tehama       | **       | **      | **       | **       | **      | **      | **      | **      | **    | \$1.6 M  |
| Trinity      | **       | **      | **       | **       | **      | **      | **      | **      | **    | **       |
| Tulare       | **       | **      | **       | **       | **      | \$3.9 M | \$1.1 M | \$2.7 M | **    | \$29.8 M |
| Tuolumne     | **       | **      | **       | **       | **      | **      | **      | **      | **    | **       |
| Ventura      | **       | **      | **       | **       | **      | **      | **      | **      | **    | \$4.9 M  |
| Yolo         | **       | **      | **       | **       | **      | **      | **      | **      | **    | \$2.6 M  |
| Yuba         | **       | **      | **       | **       | **      | **      | **      | **      | **    | \$2.1 M  |

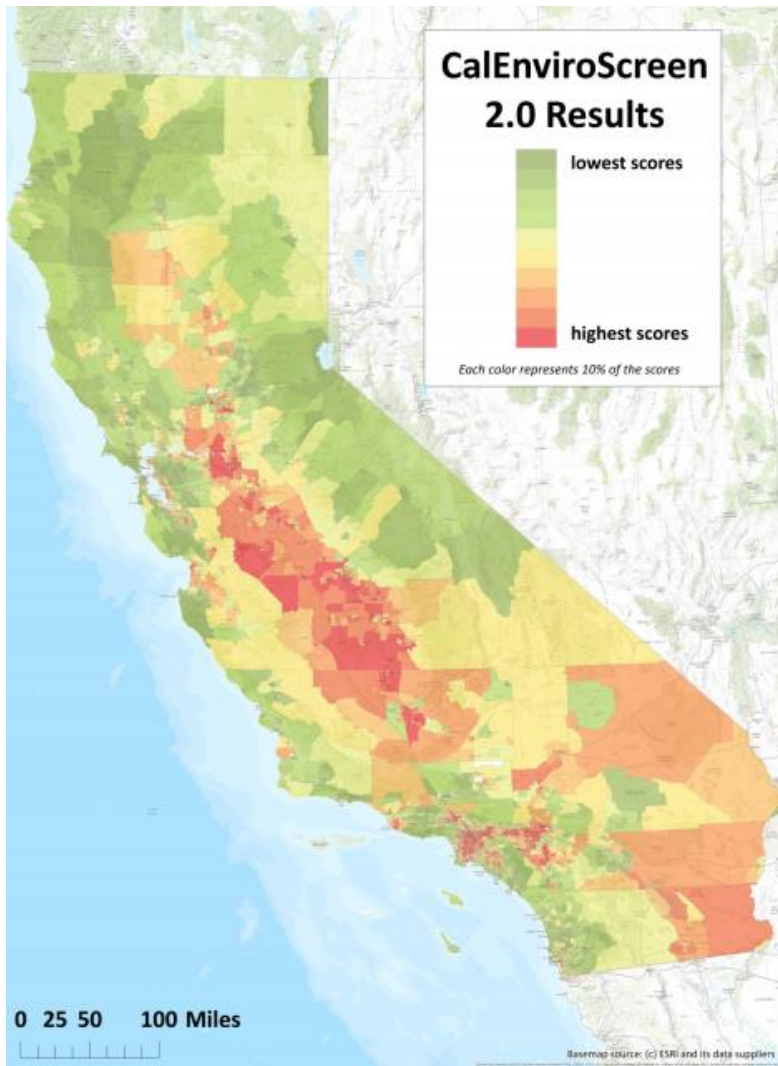
\*\* Indicates less than \$100,000

## Appendix 4: Literature Review – Revenue Estimates

| Source  | Estimate   | Notes  |
|---|--|--|
| <p>Legislative Analyst's Office (2014) The 2014-15 Budget: Cap-and-Trade Auction Revenue Expenditure Plan</p>                         | <p>\$15 Billion total through 2020</p>   | <ul style="list-style-type: none"> <li>▪ "The ARB has adopted regulations to keep auction prices within a certain range by setting a minimum and maximum price for allowances sold at auctions—from \$10 per ton of emissions to \$40 per ton of emissions. Under ARB's current auction schedule, over the life of the program, roughly half of all allowances will be allocated at auctions, with the remainder allocated for free. We note, however, that ARB is currently considering a change to increase the amount of allowances allocated for free to 60 percent.</li> <li>▪ "California's cap-and-trade program is expected to raise billions of dollars in auction revenues from 2012 through 2020. The actual amount of revenue that will be raised is difficult to predict, particularly because of the uncertainty about future allowance prices. Using ARB's floor and ceiling prices for allowances, and assuming that ARB provides 60 percent of all allowance for free, the total cap-and-trade revenues from all auctions through 2020 could range from \$12 billion to \$45 billion. Several economists who have evaluated California's cap-and-trade program have estimated that, over the life of the program, average allowance price may be in the \$15 to \$20 range. If this were to occur, total revenue for the program through 2020 could be roughly \$15 billion. To the extent that ARB does not increase the percentage of free allowances, the above revenue estimates would be higher."</li> </ul> |
| <p>Horowitz, C., et al (2012) Spending California's Cap-and-Trade Auction Revenue: Understanding the Sinclair Paint Risk Spectrum</p> | <p>Close to zero initially, \$3 Billion per year from 2015 – 2020 (Implies \$18 Billion total)</p> | <ul style="list-style-type: none"> <li>▪ "The Governor's office and the Legislative Analyst's Office have both recently estimated auction proceeds. The Governor's budget estimates that the revenue generated in 2012–2013 from cap-and-trade auctions will be approximately \$1 billion. LAO put the range of revenue at between \$1 and \$3 billion for fiscal year 2012–2013.<sup>31</sup> For fiscal year 2015–2016, its range is much broader, between \$2 and \$14 billion. Neither set of figures clearly distinguishes between consignment revenue and other allowance auction revenue.</li> <li>▪ "Assuming a \$15 auction settlement price, CARB would raise \$590 million in the advance allowance auction in 2012, and \$570 million in 2013. As noted above, auctioning remainder allowances not allocated to industry in 2013 could raise an additional unknown amount, likely not very large. Remainder allowance revenue may be close to zero for 2013 and 2014. Because remainder allowances are projected to increase by approximately 200 million in 2015, revenue from remainder allowances could easily exceed \$3 billion in 2015, again assuming a \$15 auction settlement price."</li> </ul>  |

## Appendix 5: CalEnviroScreen

### CalEnviroScreen



### Key Observations

- CalEnviroScreen is a screening methodology that can be used to help identify California communities that are disproportionately burdened by multiple sources of pollution
- CalEPA has used the tool to designate California communities as disadvantaged pursuant to Senate Bill 535
  - Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure or environmental degradation
  - Areas with concentrations of people that are of low income, high unemployment, low levels of home ownership, high rent burden, sensitive populations, or low levels of educational attainment
- The tool was updated in October 2014 to include additional data along the US-Mexico border

## Appendix 6: Acknowledgements

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Though we are grateful for their guidance, insight and feedback on the development of this report, their participation does not imply endorsement or concurrence on our methodologies or findings.

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