

Scenario Planning for Climate Change

October 28, 2010



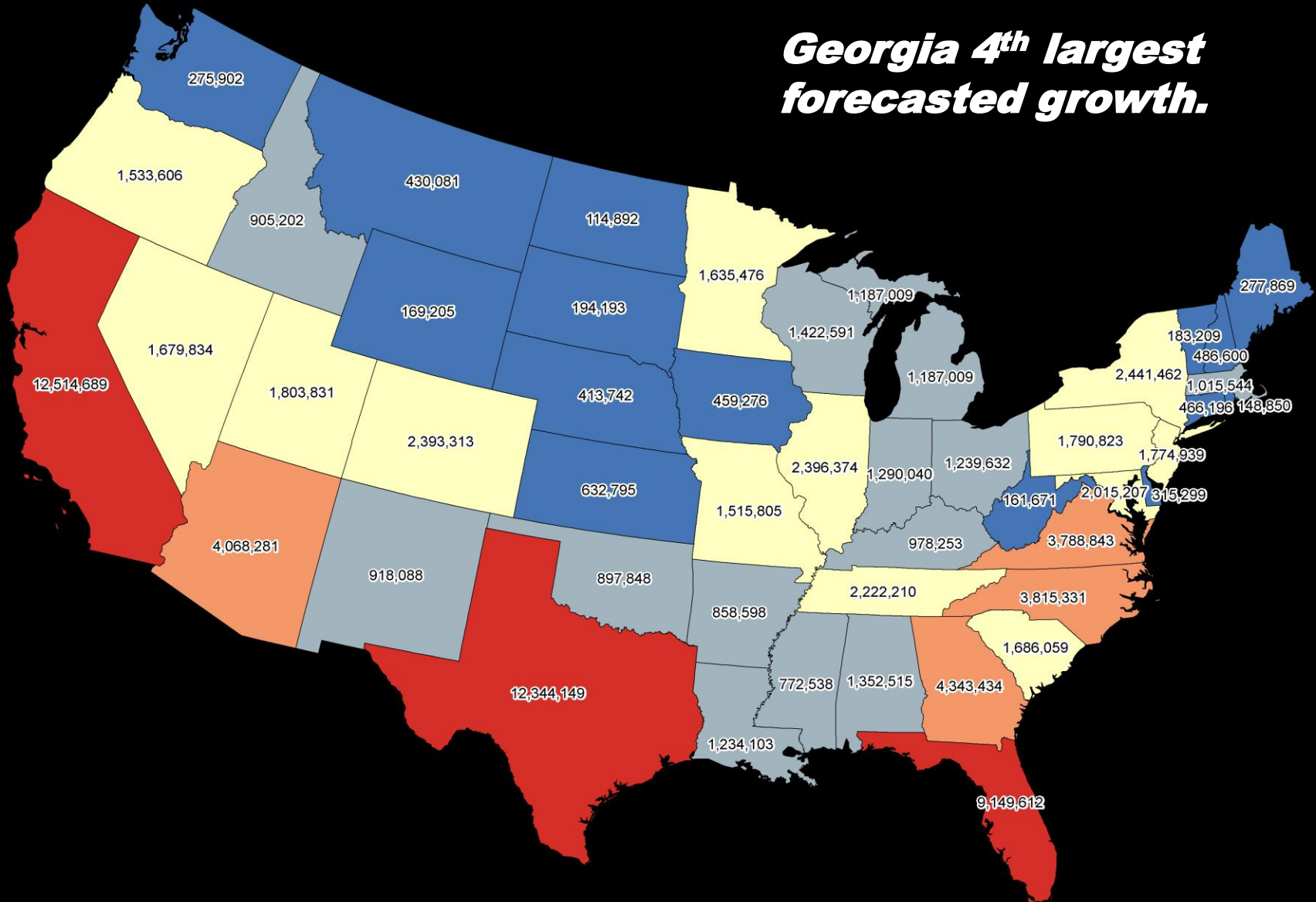
ATLANTA REGIONAL COMMISSION

Overview

- Challenges faced by the Atlanta Region
- Modeling Results Synopsis
- Lessons Learned
- Goals for the Future

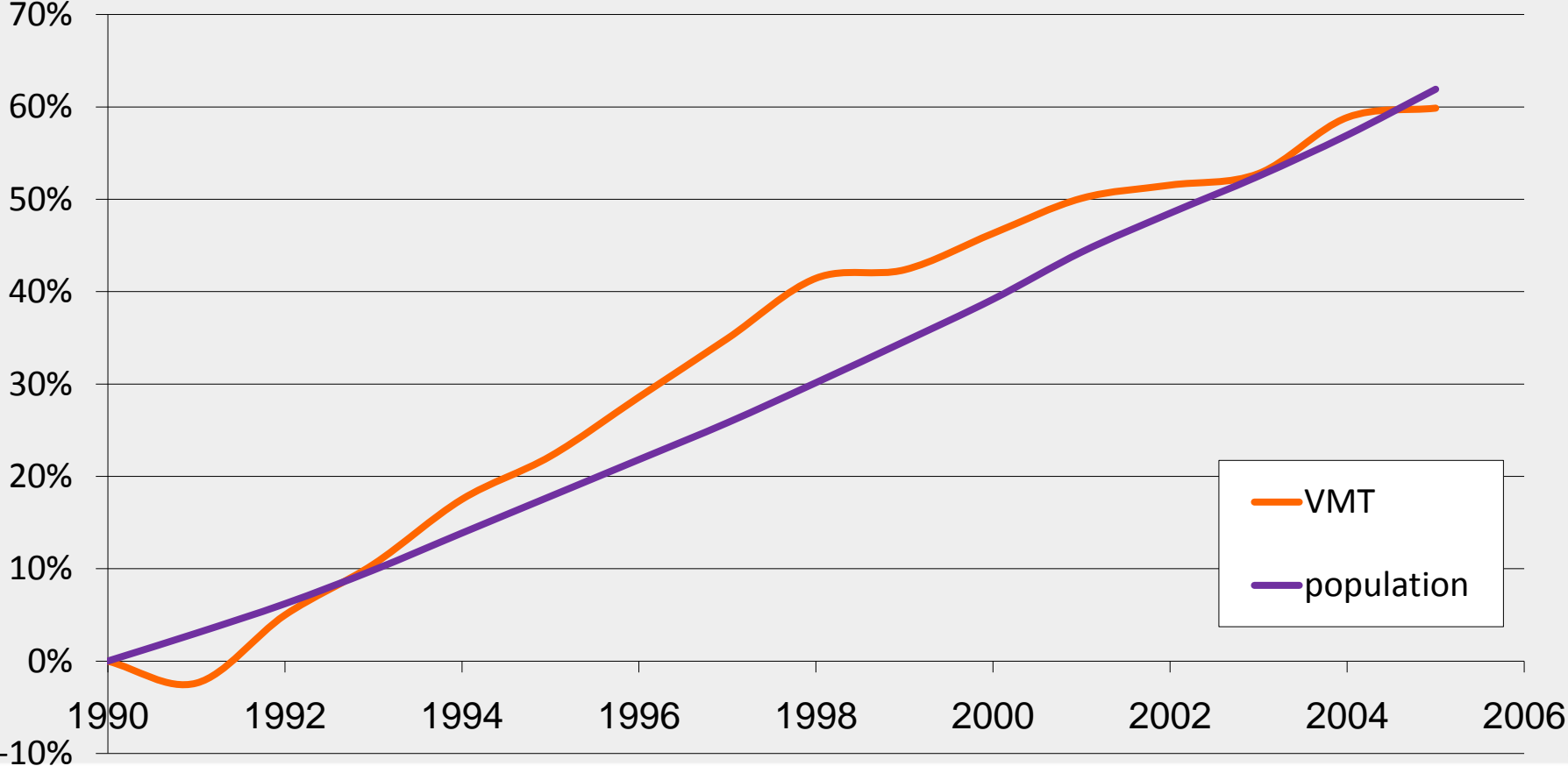
State Population Growth 2010 to 2040

Georgia 4th largest forecasted growth.



Source: Woods and Poole 2010

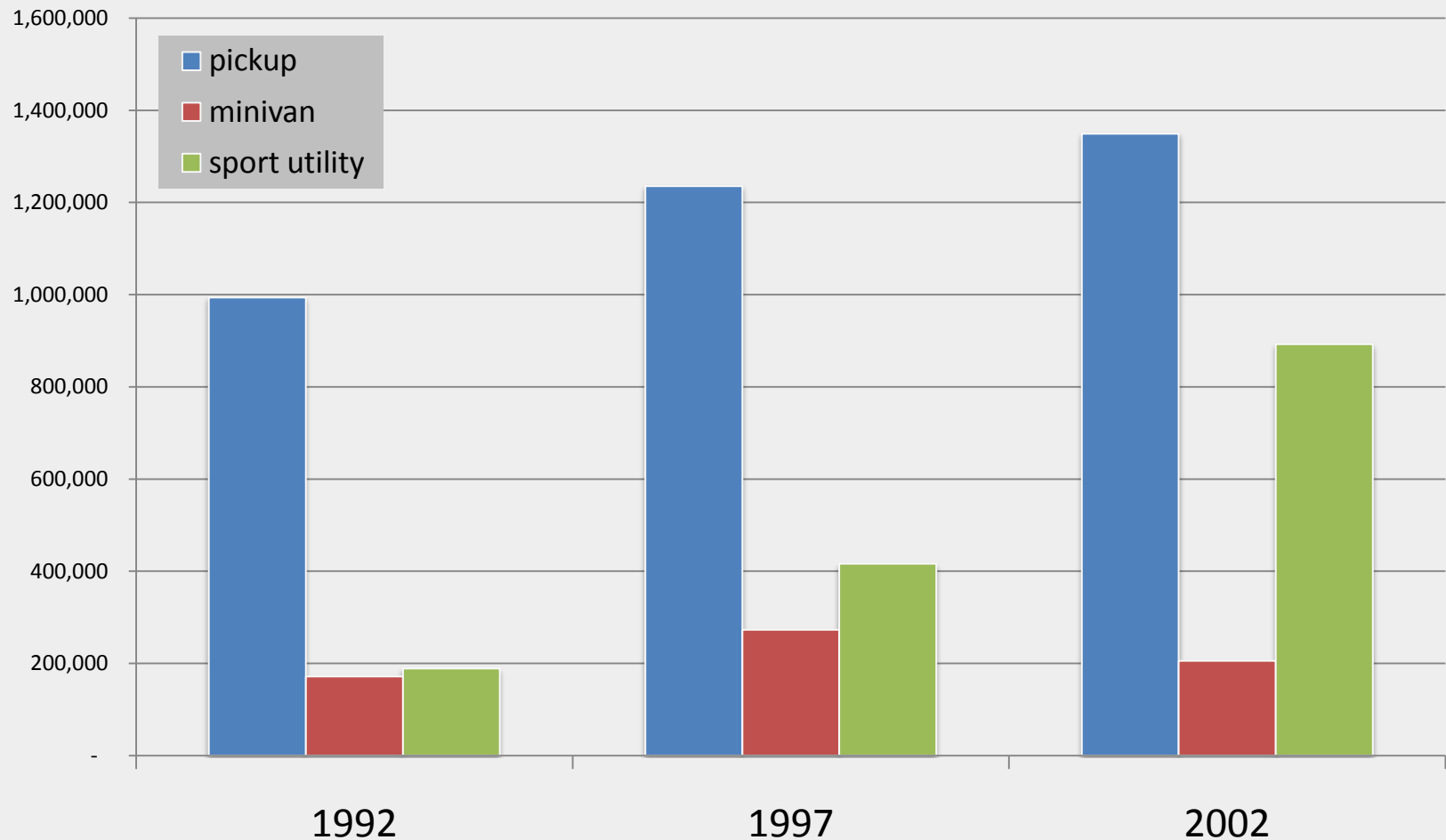
Challenge 1 – Increase in VMT



Source: GDOT, ARC



Challenge 2 – Fleet Inefficiency



Source: US Census Bureau, 2002 Economic Census


Challenge 3 – On Road Freight Traffic

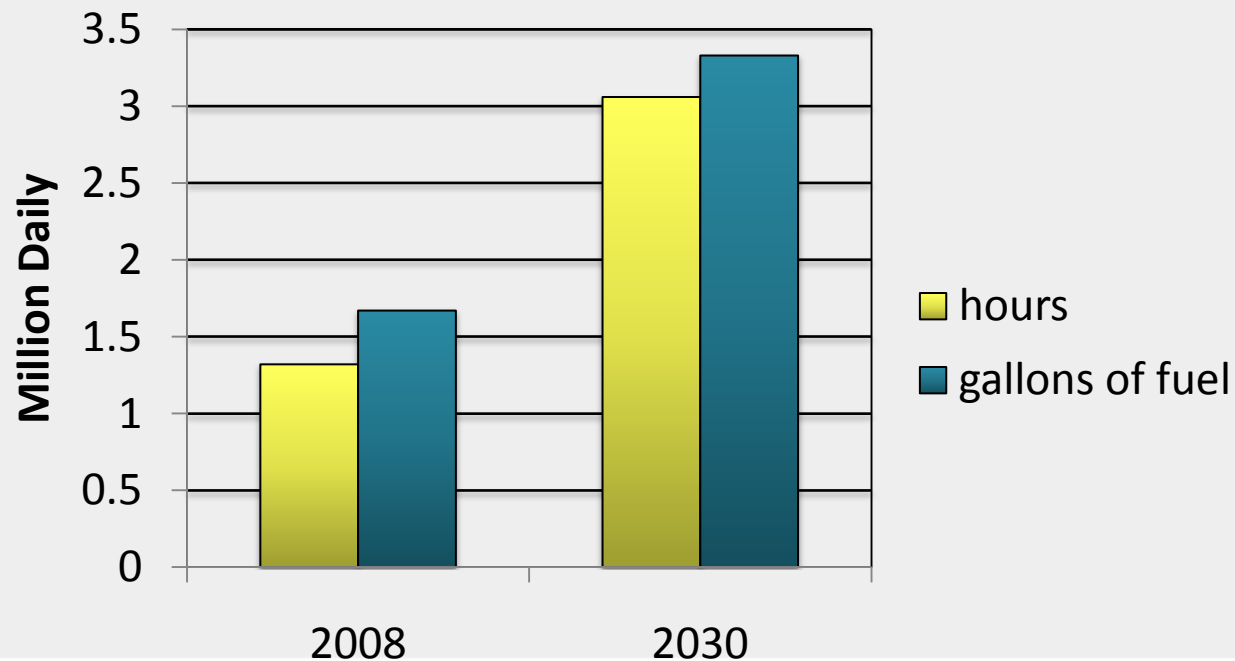
- Trucks account for 84% of the region's freight movement
- 55% increase in VMT between 2005 and 2030
- Heavy-duty diesel engines are a primary source of CO₂ emissions



ARC, Envision6

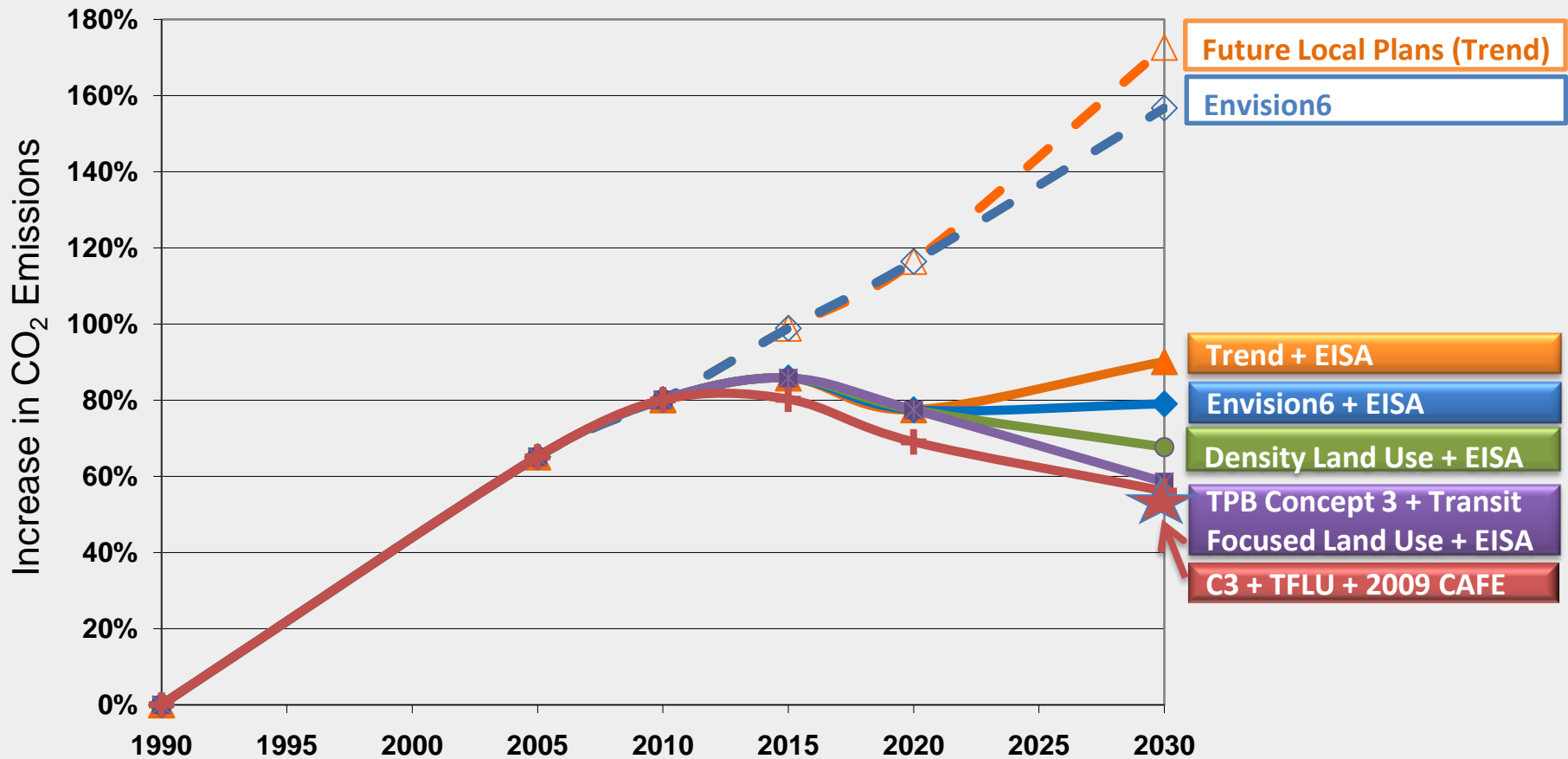
Challenge 4 – Congestion

- Low travel speeds and idling
- 1.35 TTI in 2007  1.64 by 2030

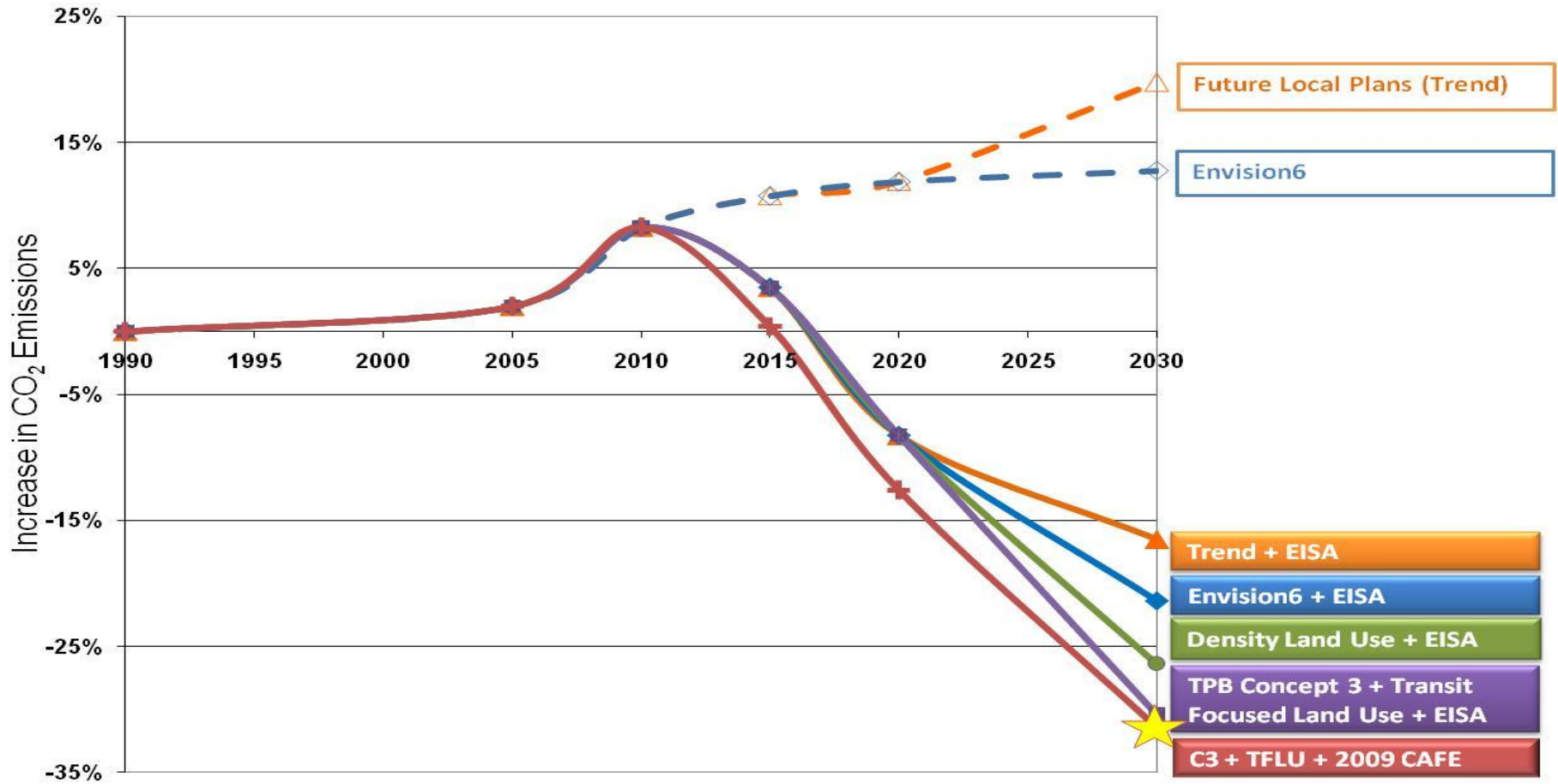


ARC, *Envision6*

Modeling Results – Composite



Modeling Results – Per Capita Composite



Lesson's Learned

- The Atlanta region faces many challenges to combating greenhouse gas emissions due to its rapid growth
- Technology improvements drive emission reductions
- Good planning and smart land use can have a large impact on regional emissions

Plan 2040 Initiatives

- Environmental sustainability is a key plan goal
- Added CO₂ as a criterion for benefit cost analysis
 - Projects should be responsible for their “hidden” externalities
 - Assigned a price per ton of emissions

Goals for the Future

- Goal 1: Promote sustainable development through integrated land use and transportation strategies
- Goal 2: Reduce VMT by supporting alternative modes and implementing transportation pricing measures
- Goal 3: Support the use of cleaner and more fuel-efficient vehicles and alternative fuels
- Goal 4: Work with stakeholders to set meaningful and realistic emission reduction targets
- Goal 5: Consider adaptation strategies