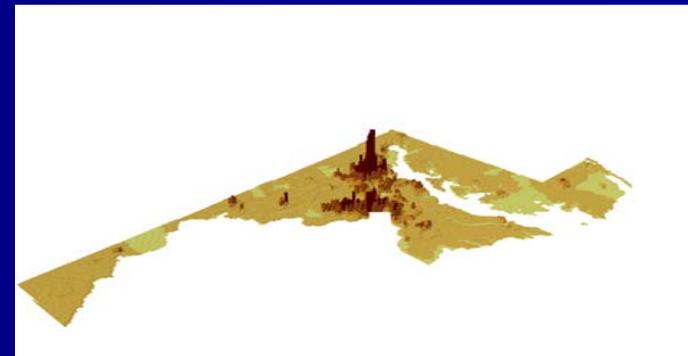


Bringing Intelligence to Smart Growth:

Gerrit-Jan Knaap

Executive Director and Professor
National Center for Smart Growth

www.smartgrowth.umd.edu



The National Center for Smart Growth Research and Education

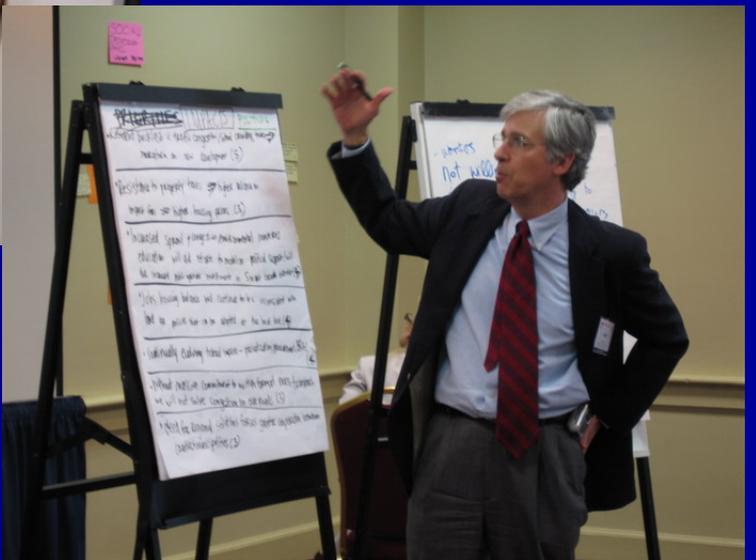
- Established in 2000;
- Four Schools:
 - Agriculture;
 - Architecture, Planning and Preservation; Engineering; and
 - Public Policy.
- Program areas:
 - Land Use and Environment,
 - Transportation and Public Health,
 - Housing and Community Development, and
 - International Development.



The Maryland Scenario Project

The purpose of the Maryland Scenario Project is....

- To take an informed and careful look at alternative long-term future scenarios;
- To conduct a quantitative assessment of each scenario;
- To identify where and how public policy decisions will increase the likelihood of more desirable scenarios.

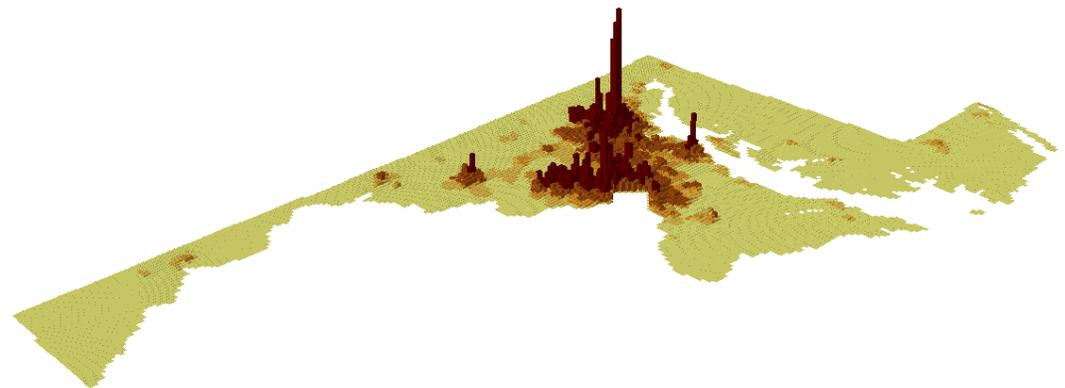
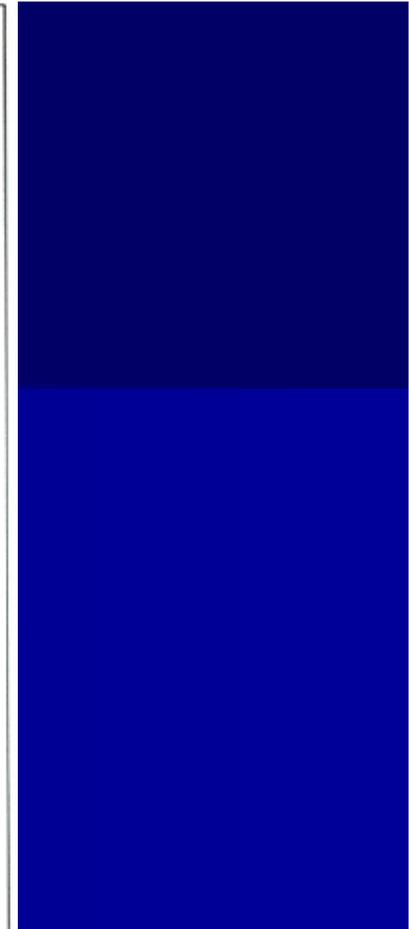
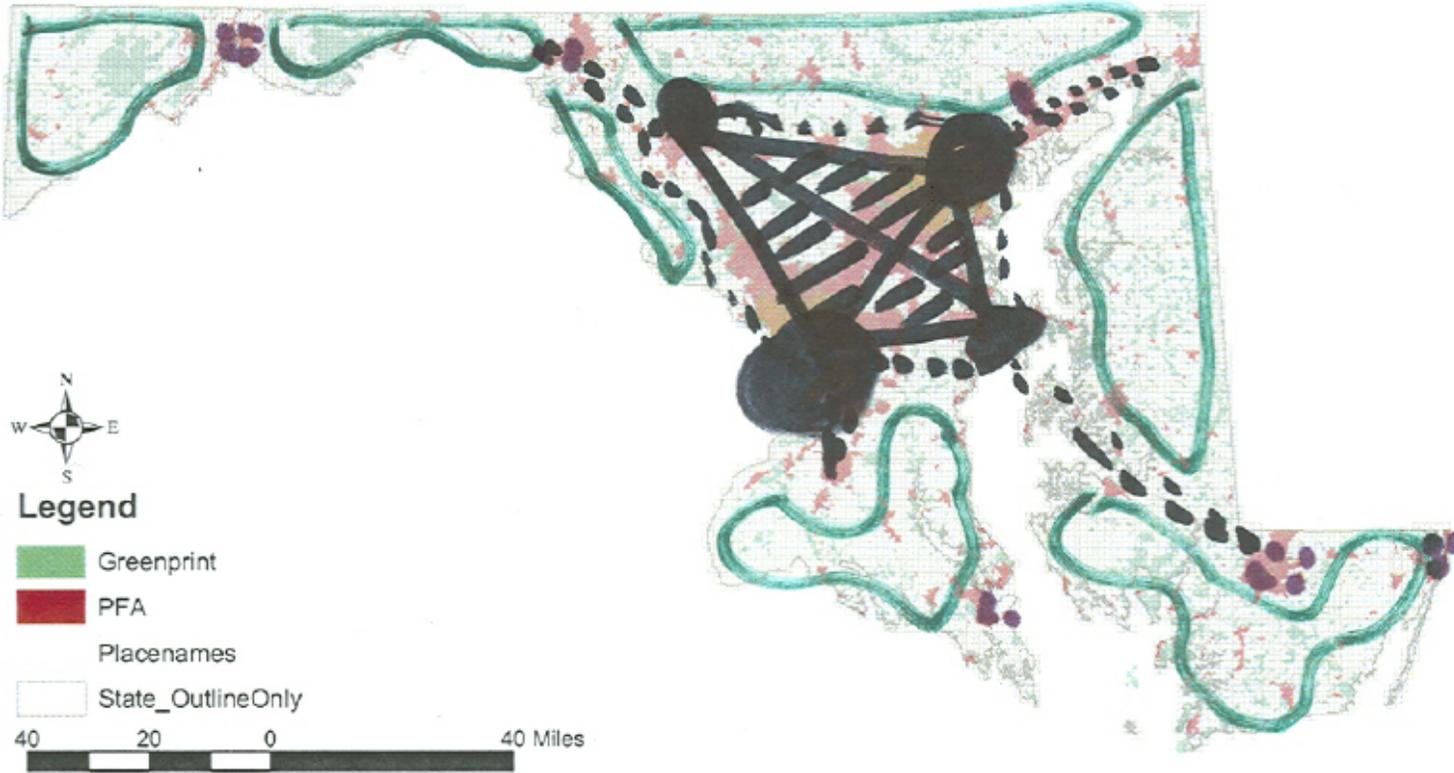


GREATEST IMPACT AND MOST UNCERTAIN

The following table shows the driving forces that the group thought (1) would have the greatest impact, and (2) were the most uncertain. In this group, the issues deemed as likely to have the most impact did not overlap with issues deemed uncertain. “Category” in the table refers to the ten categories above.

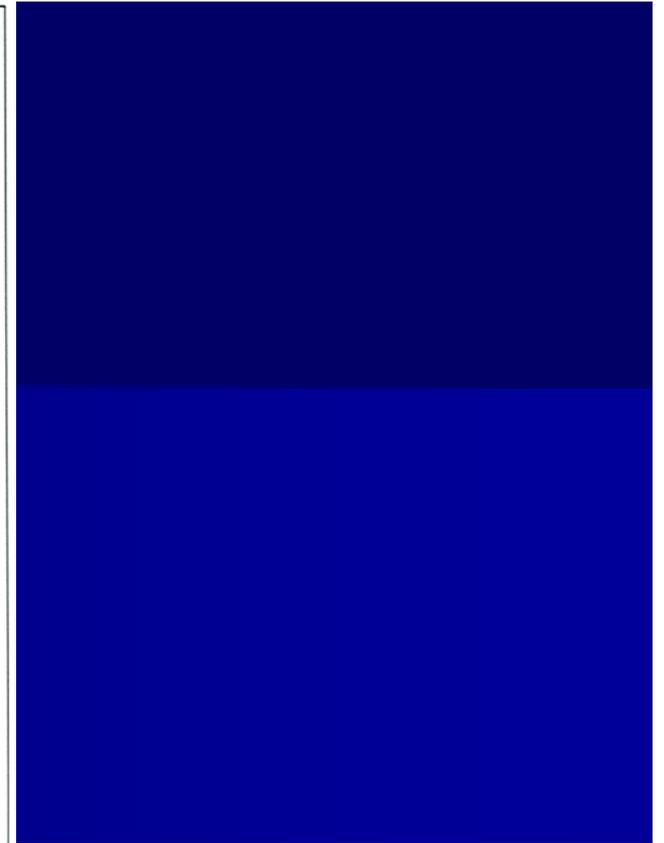
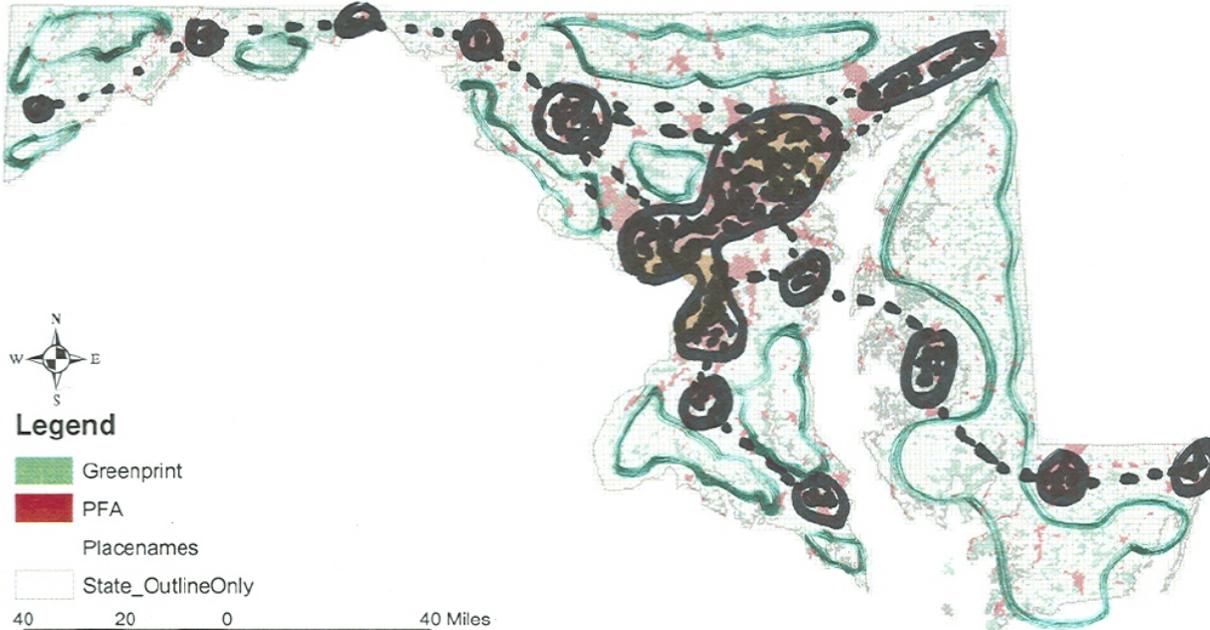
Cate- gory	Economic Driving Force	# of Group members saying...	
		Will Have Large Impact	Very Uncertain
8	Economic development in Baltimore – expansion of knowledge-based industries	***	✓✓✓✓
2	Increasing inequality in income and wealth	***	
5	Higher education policies to support knowledge-based industries and international competitiveness	***	
1	Job growth in the Federal Government	**	✓
6	Increasing pressure to compete in a global market	**	
9	Lack of requirement for job/housing balance resulting in longer commutes – disconnect between economic development and housing planning	**	
5	Role of Immigrants – both legal and illegal – in economic growth	**	
7	Maintaining and developing a viable economic base in rural Maryland	**	✓
4	Production of sustainable and renewable fuel	*	✓✓

Base Map for Scenarios Maryland

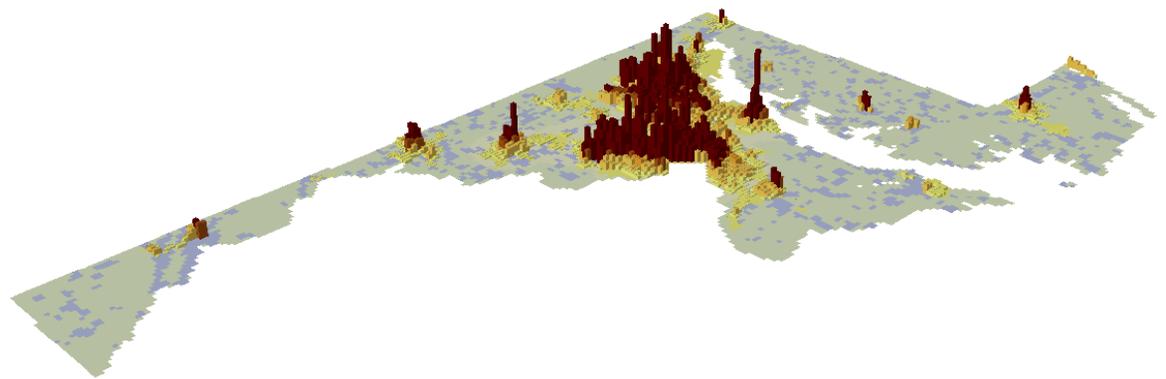


Urban Diamond

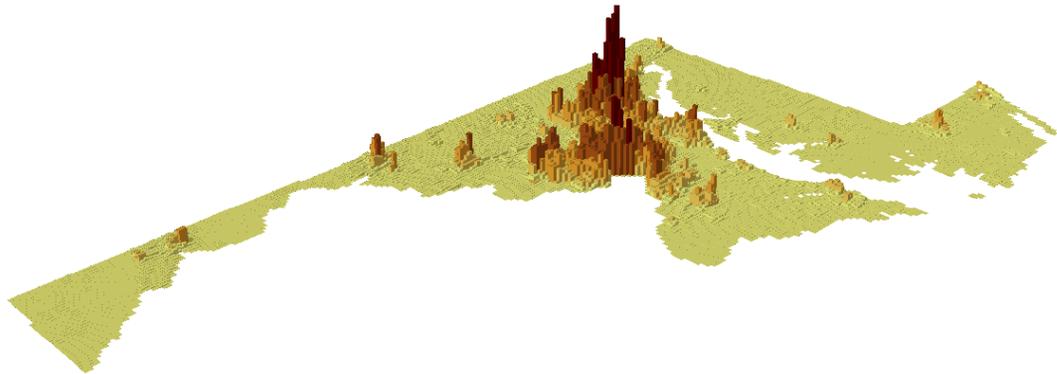
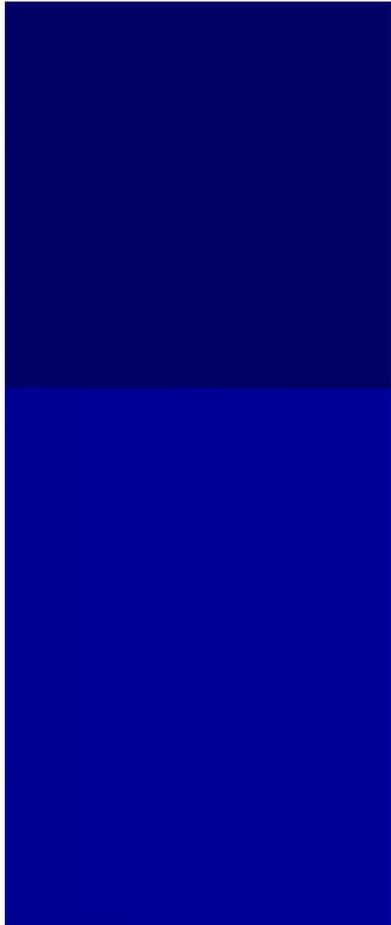
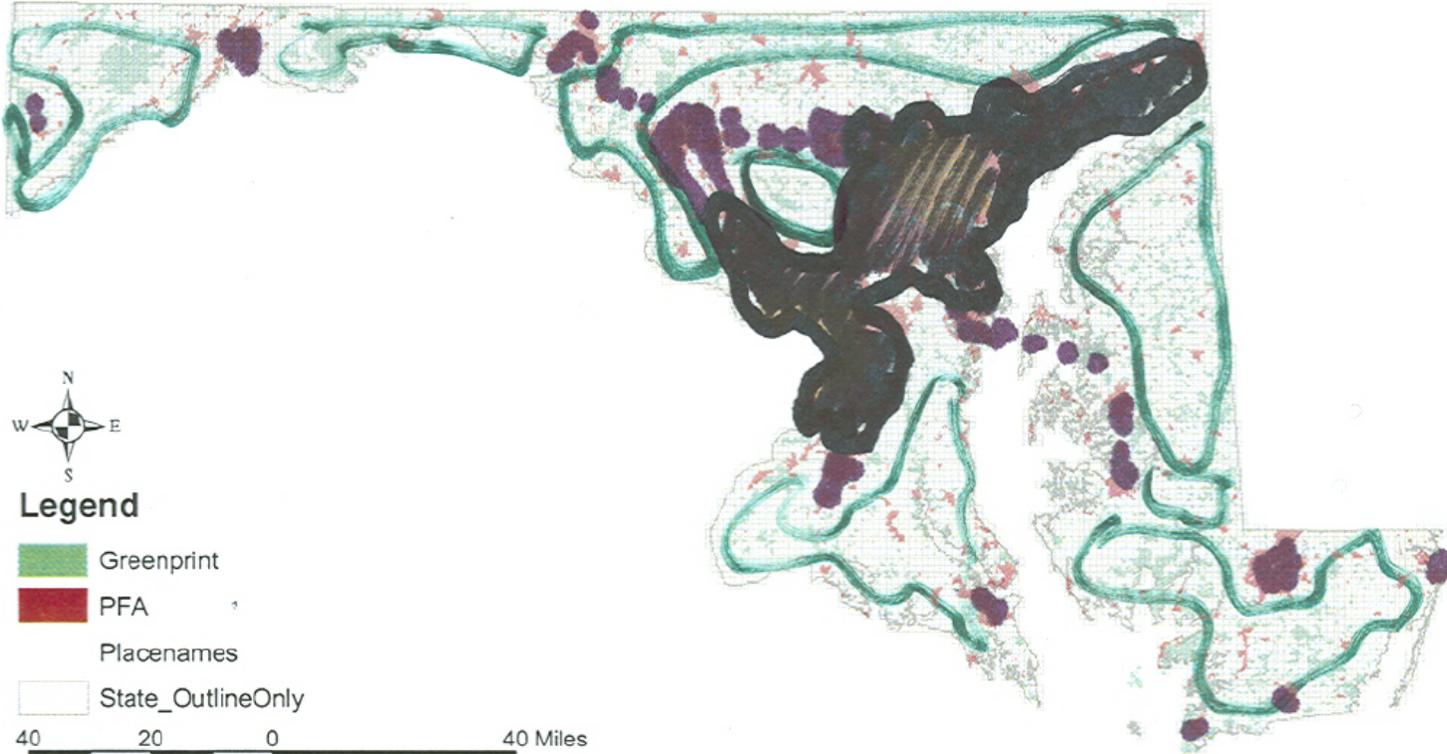
Base Map for Scenarios Maryland



Urban Clusters



Base Map for Scenarios .Maryland



Smart Growth

Ongoing and follow-up research

- Statewide transportation model
- Land use allocation model
- Econometric model
- Residential energy consumption model
- Water quality impact model
- Fiscal impact model

3-Level Concept



Top Level: Region View

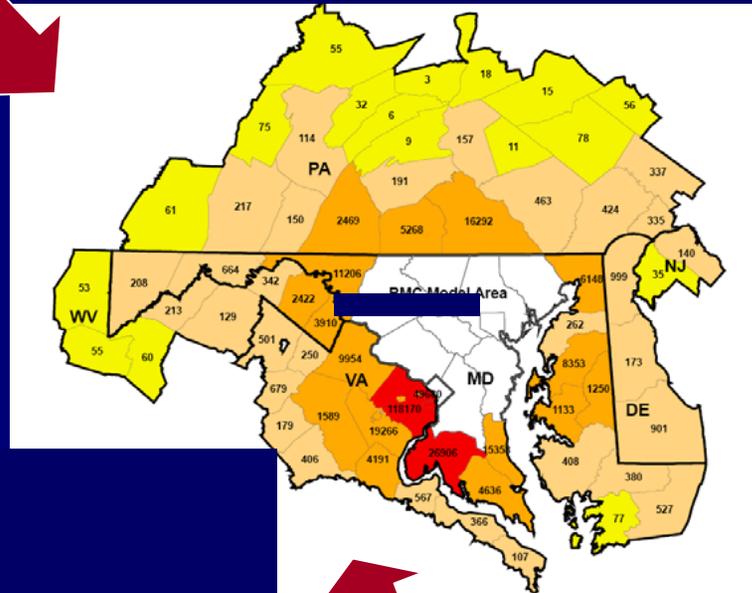
County/state zones; Interstate road/transit network

- Economic Forecast model
- FAF Commodity Flow model
- Long Distance Person Travel model

Middle Level: "State" View

Sub-county/aggregated MPO zones
Arterial network; External Stations

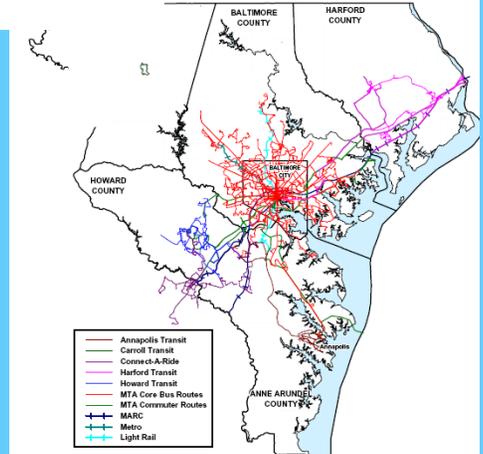
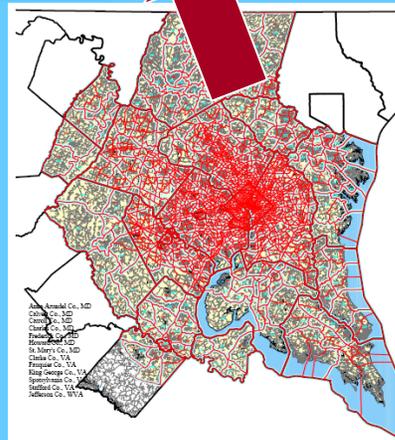
- Short Distance Person Travel model
 - Trip Generation
 - Trip Distribution
 - Mode Split
 - Assignment



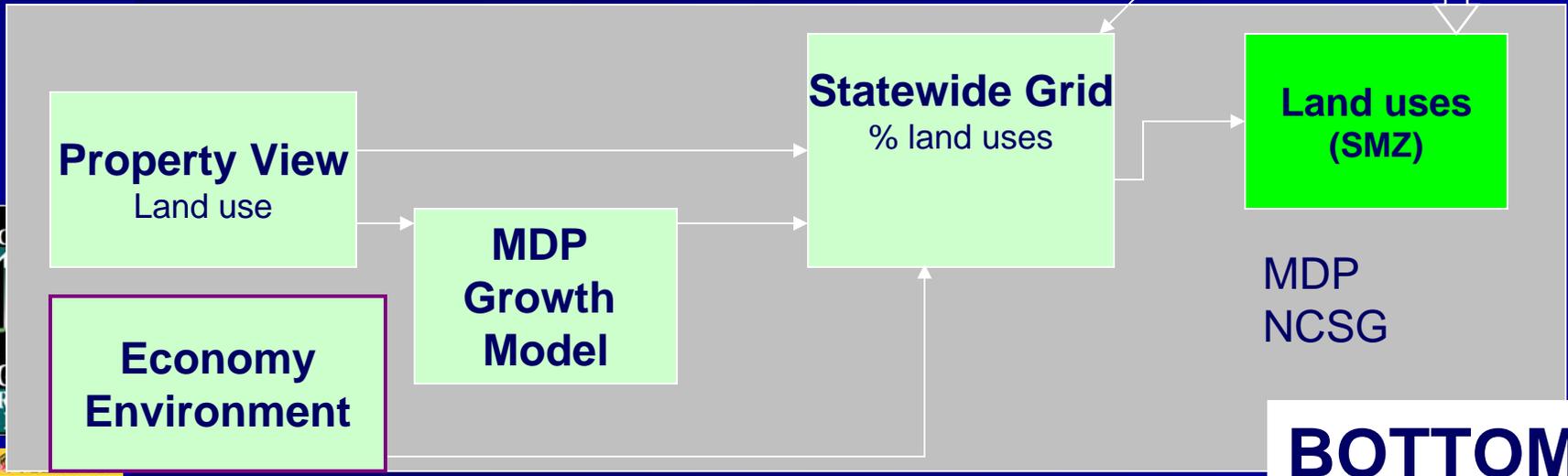
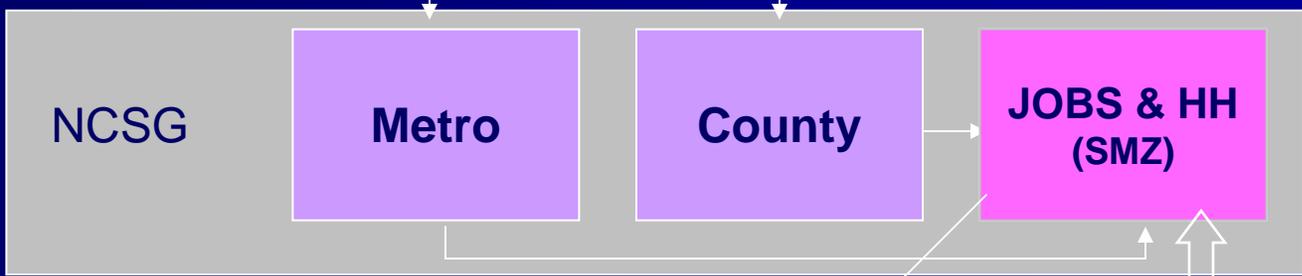
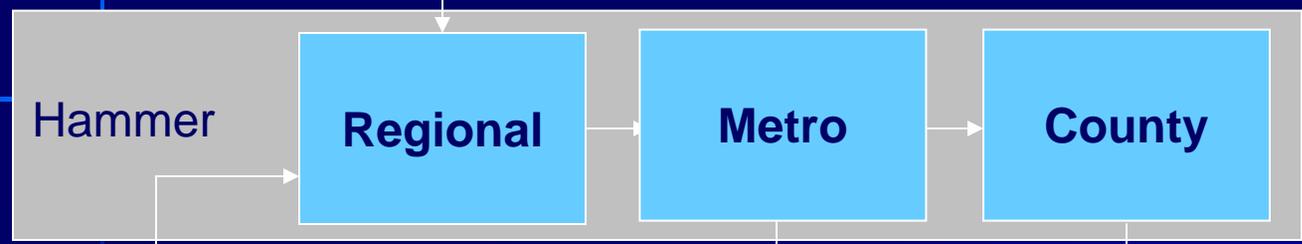
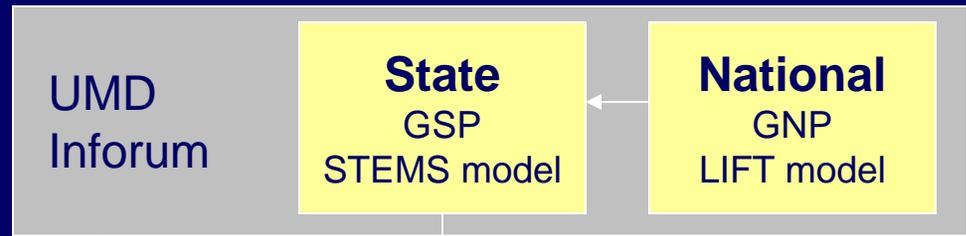
Bottom Level: MPO View

MPO TAZs; Sub-arterial network

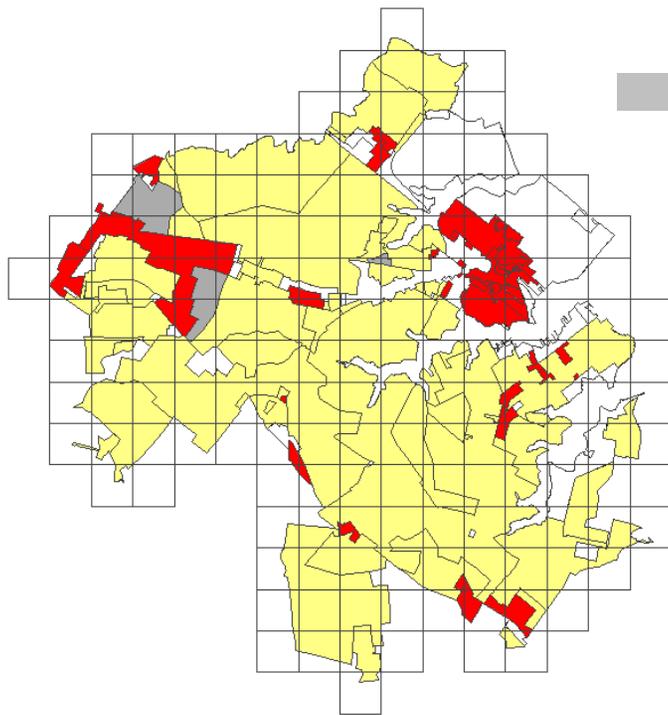
- No statewide modeling occurs
- MPO model data aggregation to compare with middle layer Statewide model



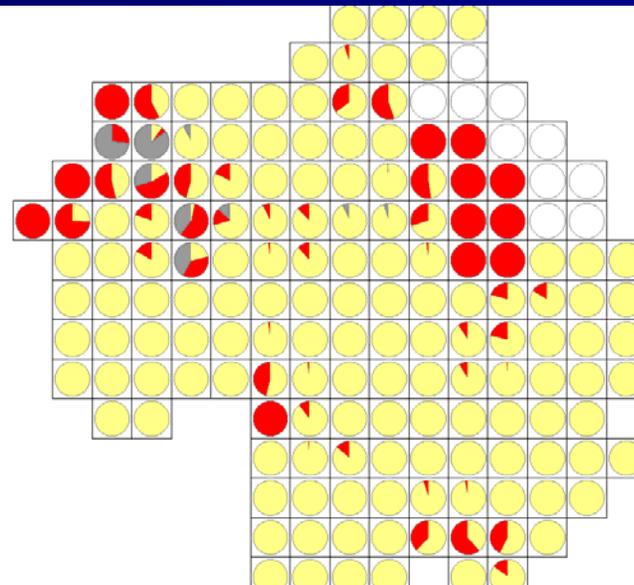
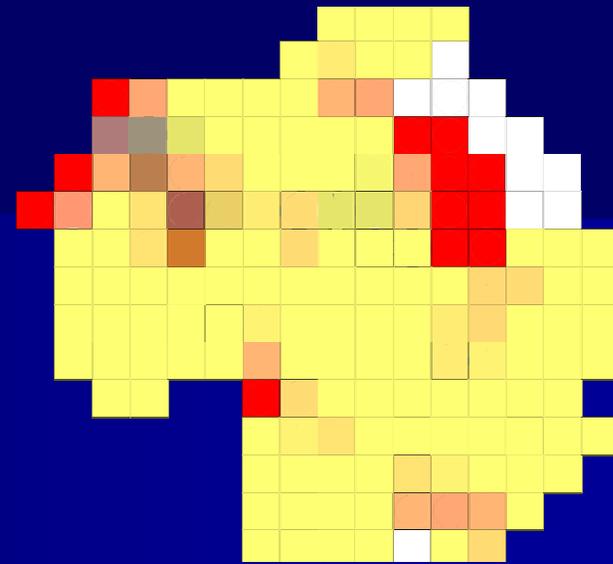
TOP DOWN



BOTTOM UP



Grids with Land Use Attributes



Shares of Land Use in Grids

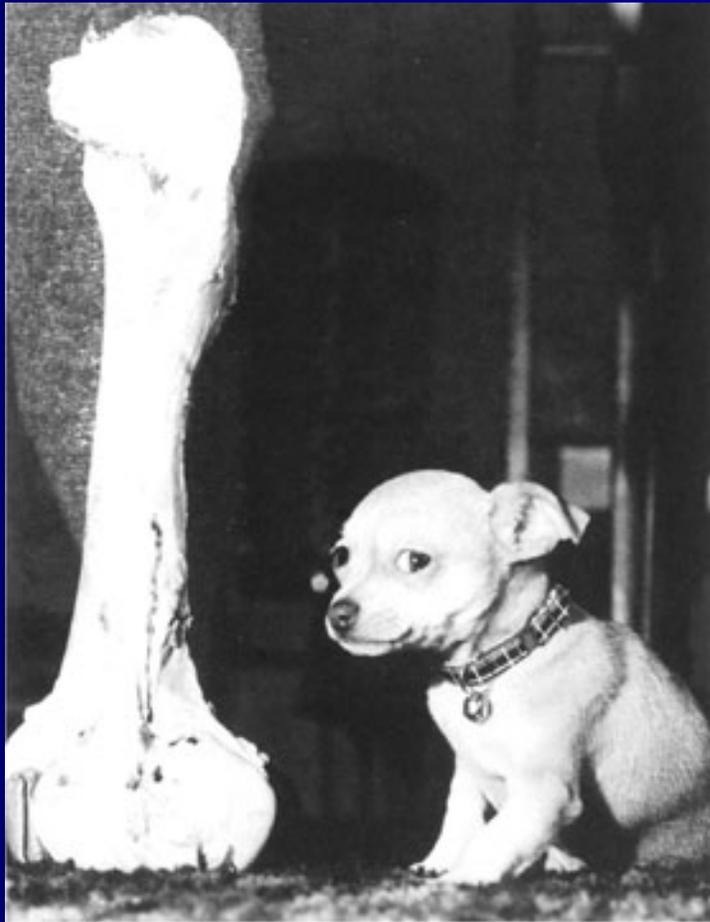
To where does this lead?

- Short term products:
 - 3-5 clearly articulated statewide scenarios, an evaluation of each, and an analysis of major public policy choices
 - A set of data and tools for future policy analysis
- Long term products: not yet clear; possibilities include....
 - Nothing more
 - A set of policy recommendations
 - A statewide plan

Education and Outreach

- Maryland Indicator Project
- Partnership for Land Use Success
- Governor's Institute for Regional Design
- Smart Growth Leadership Training

The Challenges are Formidable



But it appears possible to move a land use agenda with current information, high-quality research, public engagement, and sound technical analysis.



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