

Wake County Public School System Long Range School Planning

Operations Research and Education (OR/Ed.) Lab
April 15, 2005

- Project Phases
- Phase Timeline
- Municipality/County Involvement

OR/Ed. Lab



NC STATE UNIVERSITY

Long Range Planning Framework

Student Projection Model



Land Use Planning Service Bureau



- | | |
|-----------------------|---------------------|
| Town of Apex | Town of Cary |
| Town of Fuquay-Varina | Town of Garner |
| Town of Holly Springs | Town of Knightdale |
| Town of Morrisville | City of Raleigh |
| Town of Rolesville | Town of Wake Forest |
| Town of Wendell | Town of Zebulon |



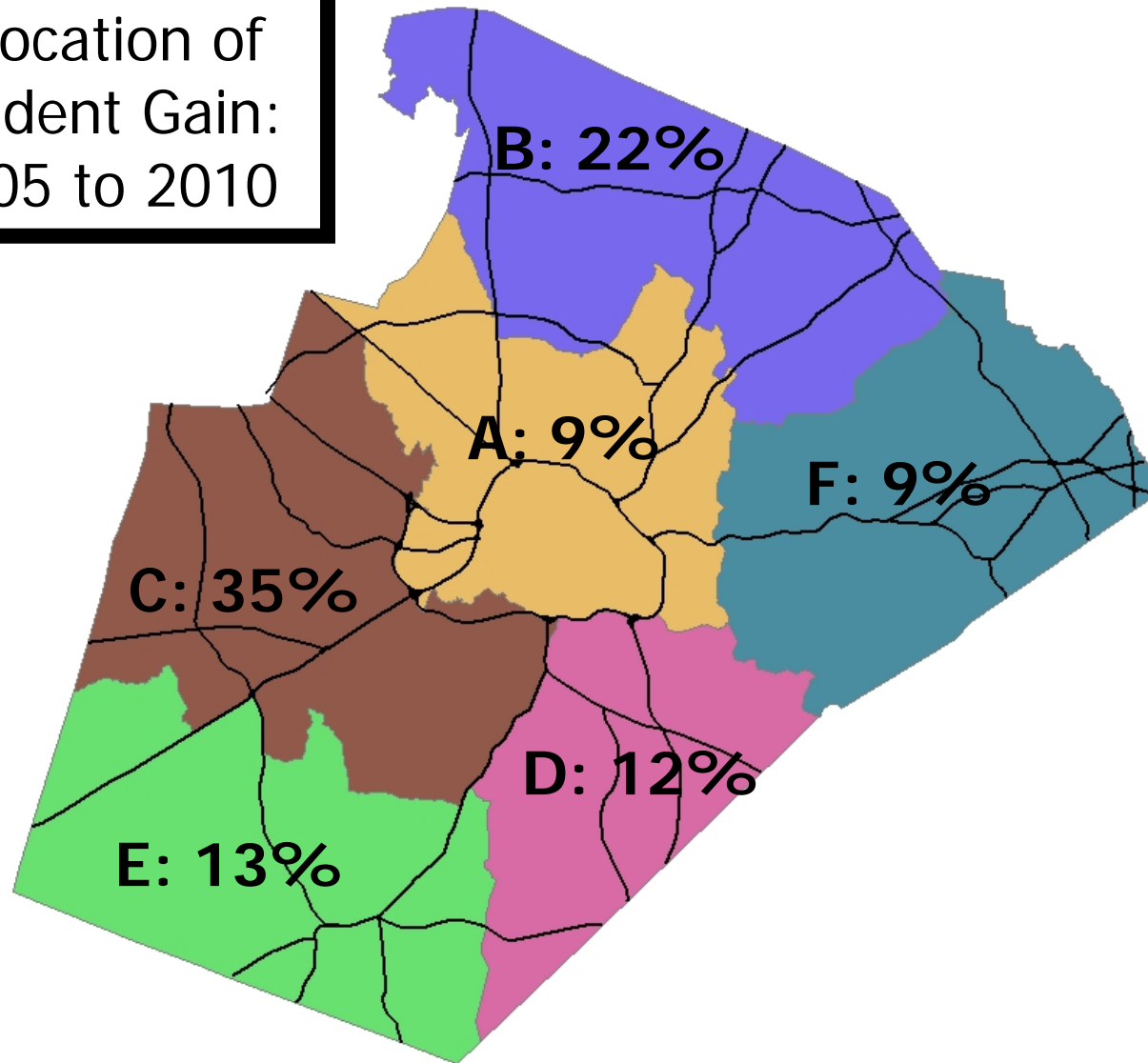
WCPSS Long Range Planning

Development of "OR/Ed. Planning Regions"

- OR/Ed. Planning Regions are to be constructed jointly by stakeholders.
- System level projection from Student Projection Model is allocated to the OR/Ed. Planning Regions. The allocation mechanism is based on a comprehensive land use study based on land use data supplied by stakeholders.
- Consensus building with stakeholders on allocated growth.

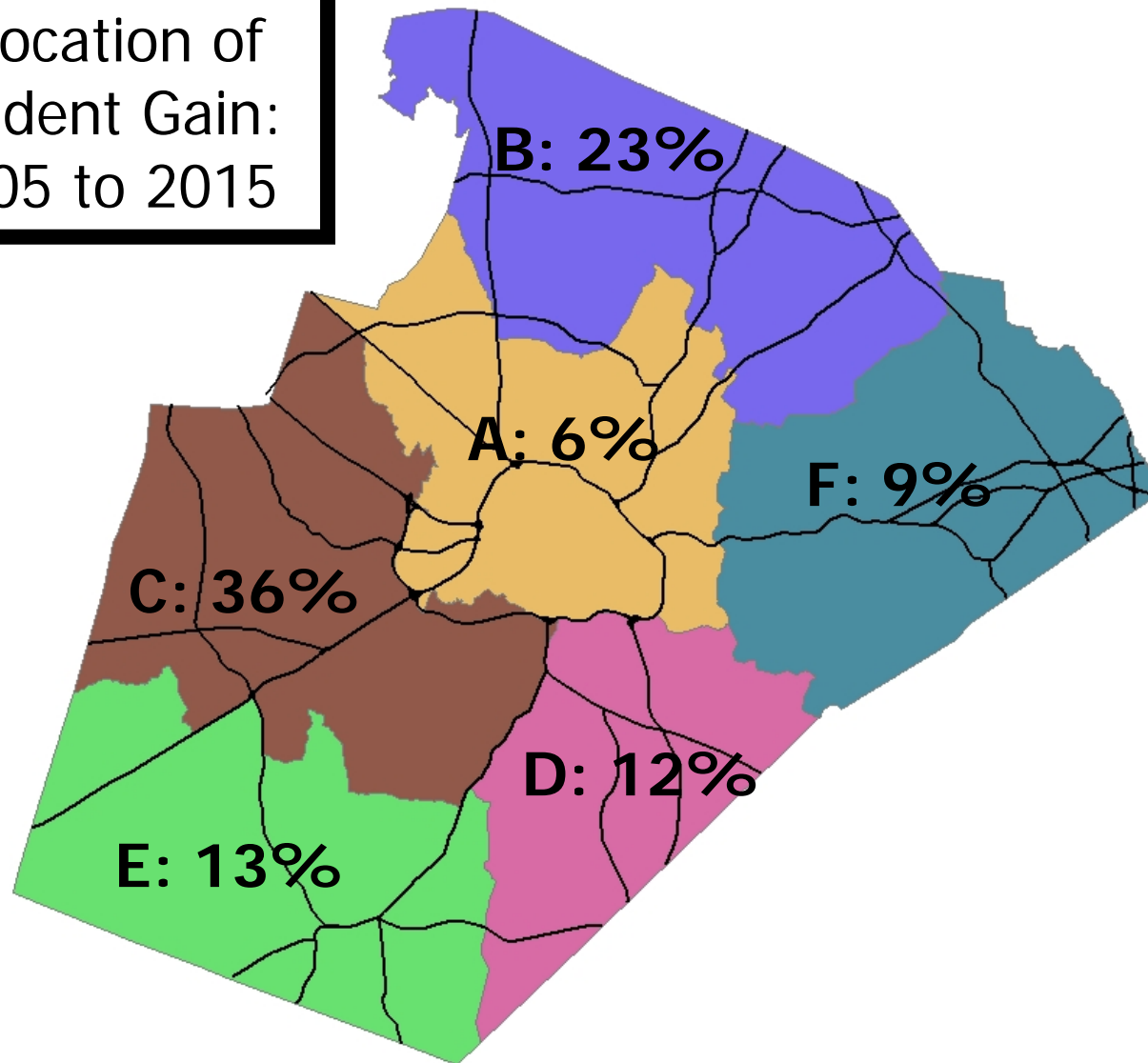
Projected Student Gains: Current WCPSS Planning Area

Allocation of
Student Gain:
2005 to 2010



Projected Student Gains: Current WCPSS Planning Area

Allocation of
Student Gain:
2005 to 2015



WCPSS Long Range Planning

- **Phase I: Profile Classes/Planning Regions**
 - April – June 2005
- **Phase II: Land Use Study/Assignment of Profiles**
 - July 2005 – March 2006
- **Phase III: Location of Target Areas**
 - April – June 2006

Phase I: April – June 2005

Negotiation of Profile Classes

(Lab + Stakeholders)

- Profile: Classification of Planning Region by Student Generating Potential
- Negotiated by Lab and municipalities and County
- Based on Land Use and WCPSS student demographic data
- Aid in creation of OR/Ed. Planning Regions

Phase I: April – June 2005

Creation of Planning Regions

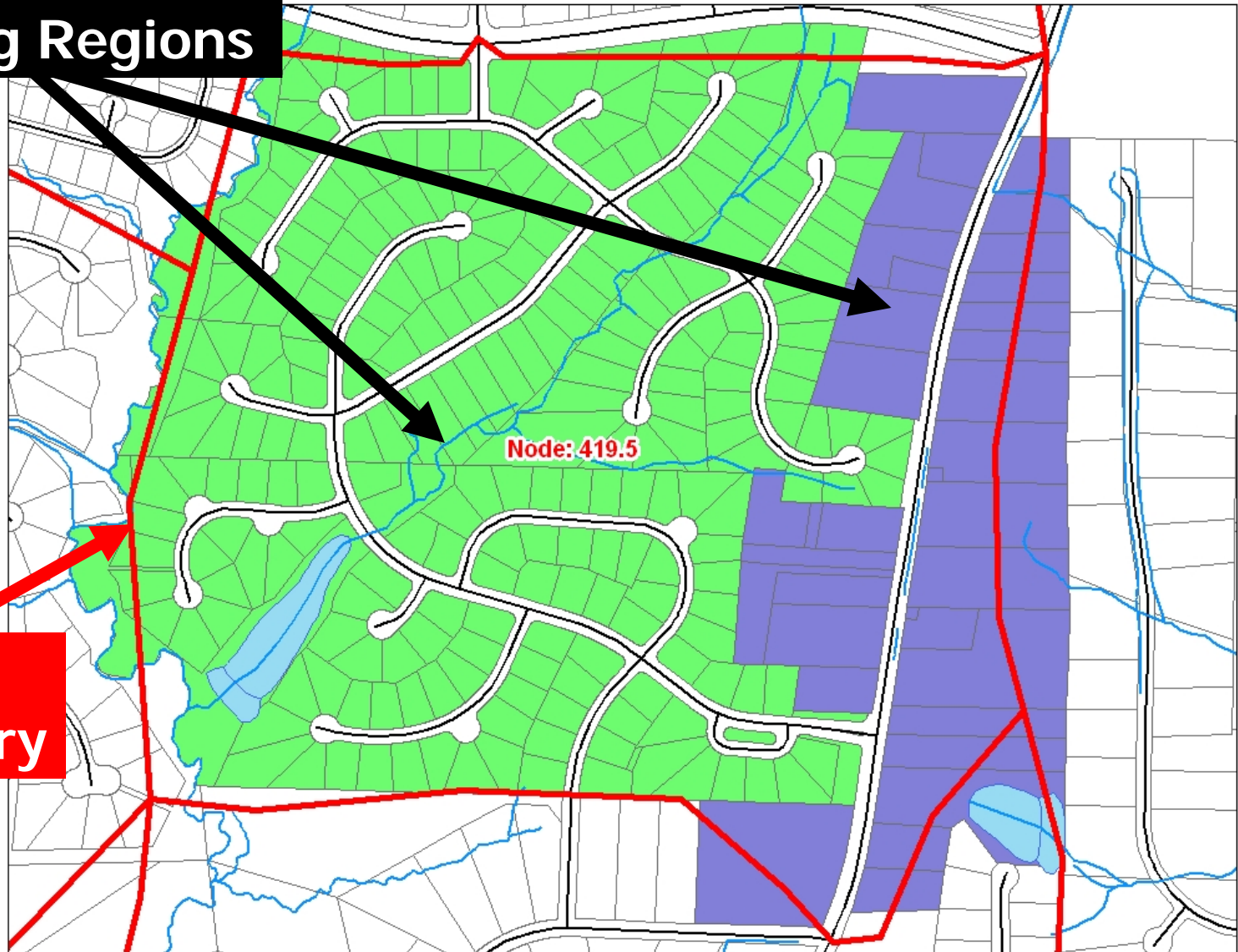
(Lab)

- Parcel resolution
- Regions will resemble WCPSS nodes
 - Some nodes will be subdivided
 - Others may be aggregated to a common profile
- Indexed to nodes and containing relevant demographic data

OR/Ed. Planning regions

Planning Regions

**Node
Boundary**



Phase II: July 2005 – March 2006

Assignment of Profiles

(Stakeholders)

- Given: Maps with node-level student data, interpolated Census data, interpolated TAZ data
- Planners will assign Profiles and enter Land Use data associated with each profile
- Growth curve determined from Profile and data

Assignment of Profiles

WCPSS: 35

Census: 45

Profile: _____

WCPSS: 35

Census: 45 (5-17)

Profile: _____

Dev. Acres: _____

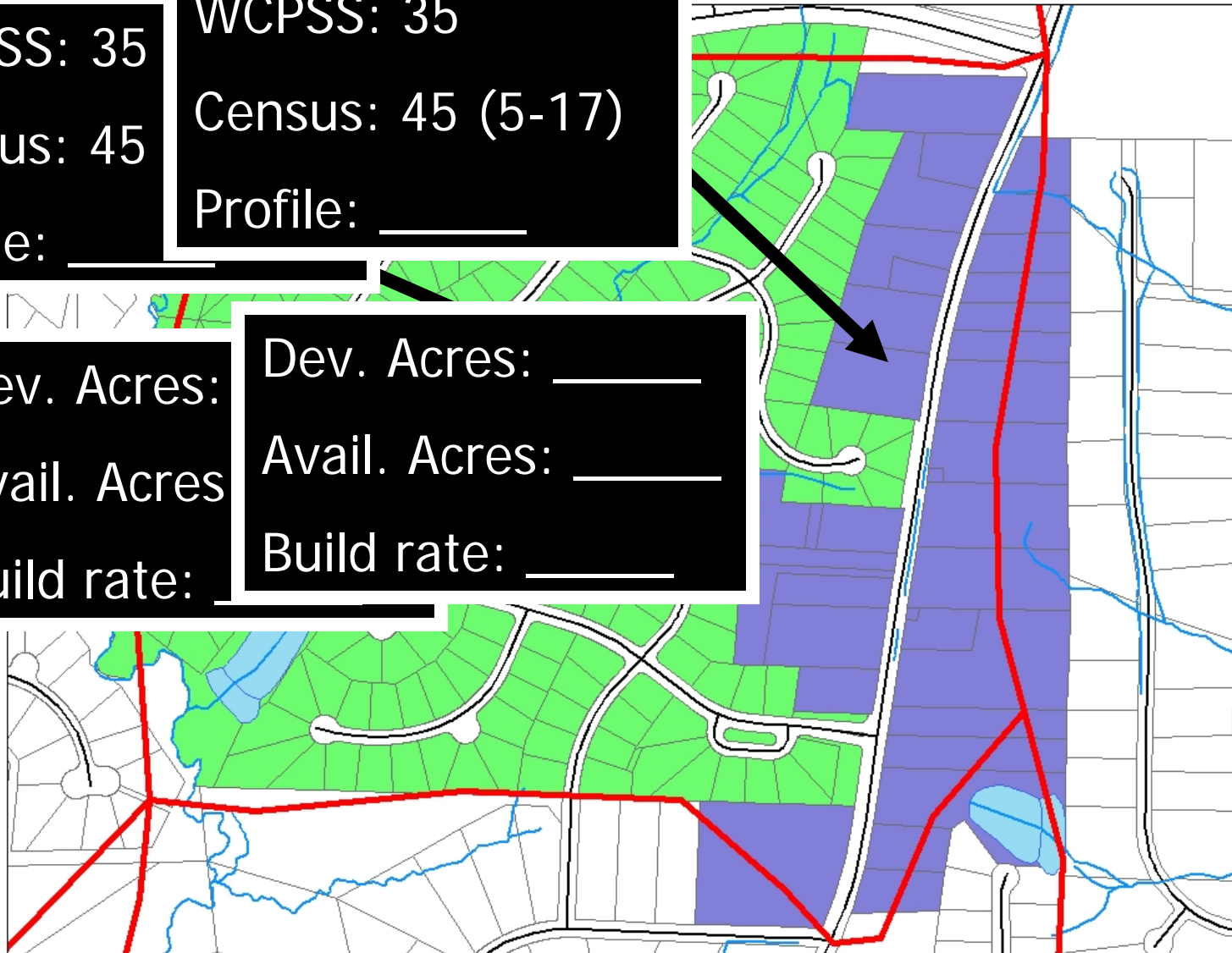
Avail. Acres: _____

Build rate: _____

Dev. Acres: _____

Avail. Acres: _____

Build rate: _____



Phase III: April – June 2006

Location of Optimal Sites

(Lab + WCPSS)

- OR/Ed. Lab will work with WCPSS to evaluate school needs base on forecasted enrollment and school capacity
- Lab will construct the optimization model to generate pool of target areas for school site land banking

Wake County Public School System Long Range School Planning

The OR/Ed. Lab and WCPSS
thank you for your
participation!

OR/Ed. Lab



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