

Transitioning: Trip-based to tour-based models

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Key Considerations

- Build alliances
- Financial plan
- Transition plan
- Staffing plan

Build Alliances

- Support of director
 - Time and money involved
- Support of project managers
 - Key partner
 - Key beneficiary
 - Key defender
- Support of regional modeling community
 - Remote model users
 - Key defender

Financial Plan (1)

- Building a model is expensive
 - But developing a tour-based model is no more expensive than a trip based
- Identify funding sources
 - Department budget
 - MTIP
 - Project partners

Financial Plan (2)

- Metro's approach
 - Developed alliance with Portland State University
 - University transportation research center (member of OTREC)
 - Applied for grant – received funds
 - Metro's modeling vision aligned well with interest areas of PSU professors

Transition Plan (1)

- Set goals
 - Model requirements
 - What policy issues do I need to address?
 - Model performance metrics
 - How long can I wait for an answer?
 - How much disk space is required?

Transition Plan (2)

- Set strategic implementation date
 - Allow several years for transition (2 minimum)
 - Avoid conflicts between old and new model – i.e. “dueling” numbers
 - Current projects should continue to use existing models
 - Target implementation date to coincide with new RTP, new horizon modeling year, etc.

Transition Plan (3)

- Define data needs
 - HH survey: Is old one acceptable or is new one required?
 - Age / comprehensiveness
 - On-board survey: Is old one acceptable or is a new one required? Do you need one?
 - Age / comprehensiveness / New Starts
 - Census data: PUMS, etc
 - Network refinement
 - Attributes, zone detail
 - Etc.

Staffing Plan (1)

- PSU / Metro / PTV partnership
 - John Gliebe and student team
 - Model design, estimation, application code, calibration
 - Metro
 - Prepare estimation data sets, VISUM skim preparation, validation
 - PTV
 - Application code guidance, model interface with VISUM
- Emphasis on full team collaboration
 - Monthly meeting of primary study team

Staffing Plan (2)

- Full staff orientation
 - Important to keep all the Metro modeling staff connected through the course of the project
 - Establish sense of ownership
 - Expand knowledge base
 - Build skill sets
- Modeling team must be in “ready” position when the tool is complete

Metro / PSU Model Status

- Winter 2008: Model design
- Spring 2008: Preparation of estimation data sets
- Summer / Autumn 2008: Estimation, application code, calibration
- Winter 2008/2009: Validation
- Spring 2009: Sensitivity testing