

Strategic Transportation Investments Implementation REPORT

October 1, 2013

Executive Summary

On August 15th, the Department submitted a report to the Joint Legislative Transportation Oversight Committee (JLTOC) and the Fiscal Research Division on the Department's recommended formulas that will be used in the prioritization process to rank highway and non-highway projects. The report included a statement on the process used by the Department to develop the formulas, included a listing of external partners consulted during this process, and included feedback from a group of key planning partners, known as the Prioritization 3.0 (P3.0) workgroup, on the Department's proposed recommendations.

A meeting of the JLTOC was held on September 10th and the Department presented its recommendations to implement the Strategic Transportation Investments (STI) law. The JLTOC reviewed the recommended formulas for highway and non-highway modes and requested the Department revisit the six items listed below with the P3.0 workgroup and report back to the JLTOC with the Department's position on the P3.0 workgroup's follow-up. P3.0 workgroup meetings were held on September 23rd and September 30th. The P3.0 workgroup's recommendations to the Department and the Department's positions on those recommendations are outlined below.

Note: In this report where the term consensus is intended to convey a P3.0 workgroup protocol which that P3.0 workgroup members agree to the recommendation and are willing to advocate for this recommendation.

- 1. Accessibility/Connectivity Criteria for highway projects in the Regional Impact and Division Needs categories.** The Department's August 15th recommendation did not include the use of accessibility/connectivity criteria in the scoring process. The STI law does allow it as eligible criteria in the Regional Impact and Division Needs categories.

The P3.0 workgroup extensively debated whether to include these criteria in the formula and scoring process. After much discussion they reached consensus to include a multi-component scoring approach for highway projects as outlined below: The P3.0 workgroup recommends this criteria be weighted at 10% and only used in the Regional Impact category and to reduce the Congestion criteria from 30% to 25% and Benefit-Cost criteria from 30% to 25%. The P3.0 workgroup also reached consensus on recommending the following purpose statement to describe this criteria:

The goal of the accessibility/connectivity criteria is to improve reliability of commuter travel and efficient goods movement statewide.

Highway scoring criteria:

- **20% - County Tier Designation** – Points are based on the Department of Commerce's county tier designation and the traffic volume along the roadway.
- **40% - Does project upgrade how the roadway functions?** – Points are based on whether the project upgrades the roadway to one which provides a higher level of

mobility by enhancing traffic flow, eliminating/bypassing signalized sections, increasing control of access, and accounting for the traffic volume along the roadway.

- **40% - Commuting times by census tracts** – Points are based on the average commuting time in the census tract(s) in which the project is located.

The P3.0 workgroup reached consensus on the inclusion of Accessibility/Connectivity and the Department concurs with their recommendation. This alters the original August 15th recommendation. The new scoring criteria for highway projects in the **Regional Impact category** (except for those Divisions/Regions with Alternative Investment Strategy) will be:

August 15th Recommendation (original)

[Travel Time] Benefit/Cost = 30%

Congestion = 30%

Safety = 10%

Total = 70%

October 1 Recommendation

[Travel Time] Benefit/Cost = 25%

Congestion = 25%

Safety = 10%

Accessibility/Connectivity = 10%

Total = 70%

2. **Normalization minimums (90% highways, 4% non-highways).** The Department's August 15th recommendation to the JLTOC was to establish a minimum or floor for highway investment (90%) and non-highway investment (4%) to be applied to the combined funding available in both the Regional Impact and Division Needs categories. After further review, the P3.0 workgroup reached consensus recommending NCDOT staff clarify the programming application of the 4% minimum for non-highways to be applicable to the full funding under the STI law (i.e., across all three funding categories – Statewide Mobility, Regional Impact, and Division Needs).

The Department reviewed and considered the impacts of this change recommended by the P3.0 workgroup. Freight rail, aviation, and highway projects are eligible for funding in the Statewide Mobility Category. If any freight rail or aviation project receives high scores and are programmed, their costs would count towards the 4% non-highway minimum approach advocated by the P3.0 workgroup. Depending on the costs of these projects, the potential exists that fewer funds (and therefore fewer projects) would be available for non-highway investment in the Regional Impact and Division Needs categories. Also applying the 4% minimum across the entire STI funding amount would equate to a sizable increase (up to \$24 million more per year) in programming dollars required to be spent on non-highway projects. This could result in less flexibility for the Department's staff to program the highest scoring projects to where the needs are the greatest. Therefore the Department recommends no change to its original August 15th recommendation.

- 3. Local input point distribution.** The Department's August 15th recommendation was an equal distribution of local points between the Division Engineers (DE's) and the Metropolitan and Rural Planning Organizations (MPOs/RPOs) in the Regional Impact and Division Needs categories. The Department was asked to review this recommendation. Subsequently, a survey of the P3.0 workgroup indicated there was some concern that the DE's were allowed to have too much share of the local input distribution. The concerns referenced the fact that the Department already has representation at a local level through the Technical Coordinating Committees and Technical Advisory Committee of the MPOs/RPOs and therefore has a vote on those committees. Others noted that an equal distribution indicated a true partnership with the MPOs/RPOs and the DE's provide a more global view of transportation needs that transcend individual geographic boundaries. The STI law specifies the local input share as 30% in the Regional Impact Category and 50% in the Division Needs Category. The P3.0 workgroup revisited this item in their P3.0 workgroup meetings and has reached consensus recommending the following percentage splits for local input scoring between MPOs/RPOs and NCDOT DE's:

Regional Impact category: 10% Division Engineers; 20% MPO/RPO
Division Needs category: 20% Division Engineers; 30% MPO/RPO

The Department's recommendation is to promote both an equal partnership and a more global view of meeting transportation needs of moving people and goods and connecting people and places. The cascading effect built into the STI enhances the ability for DE's to take a broader view of how to address transportation needs across all modes and individual planning organization boundaries and support the interests of the traveling public. Therefore the Department recommends the following local share distribution which alters the original August 15th recommendation:

Regional Impact category: 15% Division Engineers; 15% MPO/RPO
Division Needs category: 20% Division Engineers; 30% MPO/RPO

- 4. Use of the Alternate Investment Strategy for highway projects in the Regional and Division categories.** The Department's August 15th recommendation was to allow the use of an Alternate Investment Strategy. Divisions 1-4 have adopted alternate strategies. The P3.0 workgroup heard from those areas that have adopted alternate investment strategies and agree that needs may be different in different areas. In Region A (Divisions 1 and 4) the emphasis is addressing roadway design deficiencies (lane and shoulder width). In Region B (Divisions 2 and 3) the emphasis is to recognize military presence, connection to ports and efficient movement of freight. The P3.0 workgroup reached consensus which keeps the currently proposed alternate investment strategy approach. The Department concurs with the original recommendation and therefore there is no change to the August 15th recommendation.
- 5. Consider using the same variables/criteria to score projects across all modes.** The Department's August 15th recommendation included using different variables to score projects in the different modes. The P3.0 workgroup was unable to reach an agreement on a common set of variables/criteria that might be used across all modes. The P3.0 workgroup strived to meet the intent of the law by reviewing prioritization criteria within each mode in the short time constraint of implementing the provisions of STI. They recommended this item be further researched and proposed under the next

version of prioritization (P4.0). The Department charged the P3.0 workgroup that the effort to identify a common set of criteria to score projects across modes be a high priority in P4.0. A key purpose of the STI is to move people and goods, connecting people and places across the State. A process that moves beyond simply identifying high scoring projects per mode but also accounts for system level impact is needed. The P3.0 workgroup agreed and reached consensus of keeping the currently proposed approach of varying criteria and individual scoring for each mode in P3.0 but revisiting the issue in P4.0. The Department concurs with the original recommendation and therefore there is no change to the August 15th recommendation.

- 6. Examine the use of the unemployment rate in the Rail Accessibility scoring criteria** The Department's August 15th recommendation included the use of an unemployment rate within the rail accessibility scoring criteria. It was unclear to the JLTOC as to how the unemployment rate was being applied. The P3.0 workgroup reached consensus on this item which uses a weighted scoring approach based on a geographic buffer which includes unemployment rates in multiple counties. This is considered a minor change to one of the factors within the rail scoring criteria and will not change the scoring methodology. The Department recommends the revised approach as presented by the Rail Division and as it applies within this rail scoring criteria. This minor technical improvement will be applied to the original rail scoring measure outlined in the August 15 recommendation.

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SECTION I. P3.0 WORKGROUP RECOMMENDATIONS

On September 10th, 2013, the JLTOC met to receive presentations from Department staff, MPO and RPO representatives regarding the recommendations outlined in the August 15th report to the JLTOC on the STI law. The JLTOC reviewed the recommended formulas for highway and non-highway modes and requested the Department convene the P3.0 workgroup to seek clarification of six items. These six items are outlined below.

As a first step to respond to the JLTOC request, the Department surveyed the P3.0 workgroup members on September 11th on these six items and compiled the results. The results were distributed to the P3.0 workgroup prior to its September 23rd meeting. The survey results and summary of the September 23rd P3.0 workgroup meeting are outlined below.

1. Revisit whether to use Accessibility/Connectivity Criteria for highway projects in the Regional Impact and Division Needs categories

The survey results from September 18th indicated there was widespread uncertainty on what the criteria is intended to measure and how it should be measured. There were varying responses on if the intent was to connect rural and urban areas to job centers or if intent was to connect rural areas to employment centers. Also, there were questions regarding if some of the options proposed were already being counted by travel time savings. Two additional options were presented to the P3.0 workgroup on September 23rd. The survey indicated that more work is needed to define and describe the measure and should be included in a P4.0 effort.

At the September 23rd P3.0 workgroup meeting, there were extensive and exhaustive discussions. Some of the comments heard during this portion of the meeting included:

- Make sure job centers outside of NC are shown on proposed options and maps.
- One comment proposed an option which provides points to projects that connect high distressed (unemployment) counties to low distressed counties. This comment proposed to use the Department of Commerce's County Tier designations.
- Comment was made asking how do you connect Greenville to Jacksonville and give points when there is not much in between.
- One member indicated he believed the primary purpose of the Accessibility/Connectivity criteria is to connect long distance commuters to jobs and presented a new option. Based on that idea, discussion included what are the biggest issues facing those commuters, i.e. operational improvements, small bottlenecks and where commuters hit congestion on their route results in an unreliable commute. He pointed out the use of the American Commuting Survey as an indicator of where longer distance commuters are coming from and NC average commute time is 23.5 minutes. He proposed a scoring scale with a range of 23.5 minutes to a high of 39.2 minutes and splitting it into 3 equal scoring components for awarding points and applying it in places where there is congestion already. However, if this were used, there was only one county which would potentially receive the maximum number of points in the State.
- Another option presented by the Department was a simple method of assigning points to projects that connect high distressed (unemployment) counties to low

distressed counties. This option developed some traction but again, some were uncertain how projects within counties would receive points and some wondered whether using only this approach would connect rural areas to employment centers or just connect high unemployment counties to low unemployment counties.

- One comment said to consider using commuter data at the sub-county level. You could select and buffer down to a zip code level to get a better comparison which may show real degrees and variance in commuting.
- One example given was the difference in commuting time from North Mecklenburg to downtown Charlotte vs. Lake Norman to downtown Charlotte and whether commuting time should be the only criteria.
- P3.0 workgroup members generally agreed it was advantageous to not have to debate how to define the term job center in a proposed option.
- Another comment was received asking about how new location routes would be scored and the answer was the measure would be scored similar to other criteria using a parallel route.
- Multiple comments received regarding ongoing uncertainty with how to define Accessibility/Connectivity criteria – is the intent to help create jobs in areas with high unemployment or is the intent to help people in areas with high unemployment get to the employment centers. Some comments indicated the intent is to help people get to where the jobs currently are (in that county or in a neighboring county).
- A member questioned whether projects wholly in one county would receive points.
- A member indicated Pinehurst shows up as an employment center but Sanford does not. This simply did not make sense to this member.
- One comment suggested that a four-lane road to Gates County is not any better than the 2 lanes the road currently has because current travel time now is acceptable. So, how do we balance this with how to spend the money wisely? Other improvements (such as passing lanes) can achieve the same results.
- Some P3.0 workgroup members believed the best option included scoring projects where there is a need based on where people live and where they work.
- Other comments suggested if the intent is to help people in rural areas and try to tie this to congestion, then using the option presented by the MPO association may not help them.
- One comment received questioned whether a project like the Wilson Bypass would have done well under the MPO association's option.
- Other comments received asked whether other criteria (previously agreed to) accounts for what the P3.0 workgroup is trying to account for what the P3.0 workgroup is trying to measure in this is one Accessibility/Connectivity criteria.
- One comment received asked if there was a better way to identify the routes that connect a person to the big urban centers and we may not necessarily want to award every project inside the 40 Tier 1 counties and they believed this would this meet the purpose of the criteria.
- One comment asked whether the urban projects being built to relieve congestion and those traditionally within a certain radius of the job center are already helping rural commuters.
- Two comments received asked if the State's rural economic development strategy has been released and could this criteria link to that strategy. However,

another comment suggested doing so would lead back to the Intrastate highway system. Some comments indicated a more concrete definition is expected in about 6 months from the Department of Commerce which should have a strategy for rural economic development. Until there is a more concrete definition there is no consensus within the P3.0 workgroup.

- Some believed that addressing the Accessibility/Connectivity criteria was bigger than transportation and other infrastructure and coordination with Commerce Department might be needed.
- One comment suggested a blend of the multiple proposals could result in growing jobs where they do not exist and provide the ability to get to jobs in nearby places, an example given was Cherryville in Gaston County.
- Several comments suggested the General Assembly has not defined the intent of Accessibility/Connectivity criteria which has led to the current uncertainty.
- Comment was received to consider the impact of 53-foot wide trailers to recruit industry is a factor in providing accessibility to potential job centers.
- Multiple comments were received to consider the use of corridors, such as the network of Strategic Highway Corridors and find a way to award projects that connect to those facilities.
- One comment suggested the idea of focusing on corridors vs. trying to determine job centers and then awarding points to corridors.
- One comment suggested using the Strategic Highway Corridors and combining with multimodal and freight measures.
- After lunch, the P3.0 workgroup was charged to consider a multi-component approach for the Accessibility/Connectivity criteria. After some discussion, agreement was reached that five potential sub-components would be considered, each being weighted at 20% each. The overall Accessibility/Connectivity criteria would be weighted only at 10% in the Regional Impact category by taking 5% from the Congestion weight and 5% from the Benefit/Cost weight.

The P3.0 workgroup reached agreement (not consensus) at the September 23rd meeting to solicit feedback on the use of a five-component scoring criteria as listed below. This criteria would be weighted at 10% and only used in the Regional Impact category and reduce Congestion criteria to 25% and Benefit-Cost criteria to 25%. The P3.0 workgroup reached agreement (not consensus) on recommending the following purpose statement and the five following components to describe the Accessibility/Connectivity criteria:

Purpose: "Goal is to improve reliability of commuter travel and efficient goods movement statewide in an equitable manner."

- 20% - Tier Approach – based on NC Department of Commerce Tier County Designations. Projects receive points based on County/Tier they're located in. Tier 1 = 100 points; Tier 2 = 67 points; Tier 3 = 33 points.
- 20% - Travel Time Savings – Same measure used in other criteria (Benefit/Cost and Economic Competitiveness).
- 20% - Does project upgrade roadway on Strategic Highway Corridor? (If yes, then use volume to measure) = Volume/200.

- 20% - Commute Time Data by Zip code – American Community Survey or other data; use a sliding scale based on 20-60 minute (or highest) commute times and use a weighted average for projects that cross multiple zip codes.
- 20% - Congestion > 0.8 – measures existing congestion using volume/capacity ratio (0.8 to 1.2, sliding scale. 0.8 to 1.2 scaled approach is consistent with previous versions of Prioritization and is accepted practice for congestion measurement).

Following the September 23rd meeting, Department staff again surveyed the P3.0 workgroup members and requested a response by September 26th. Staff then compiled the results and the results were distributed to the P3.0 workgroup prior to the September 30th meeting. The survey results to four questions associated with the proposed five-component approach are summarized below:

1. Do you agree with the goal of the Accessibility/Connectivity criteria "to improve reliability of commuter travel and efficient goods movement statewide in an equitable manner"? If not, why not?
The MPO and Metropolitan Mayors Coalition's responses: The preference would be that this measure be delayed until something better can be devised under P4.0. However, we understand this is a significant issue for the Department and certain stakeholders.
The RPO Association response: The goal is sufficient.
2. Do you agree with each of the five scoring components and how they will be measured? If not, why not?
MPO and Metropolitan Mayor's Coalition response: If it is used, it is fine as currently stated.
RPO response: There are too many components. Congestion and travel time savings are calculated elsewhere and should be removed.
3. Do you agree with the recommended percentage weights associated with each of the five components? If not, why not?
MPO and Metropolitan Mayor's Coalition response: Okay but do not support using it at the Division level.
RPO response: Beyond removing congestion and travel time savings, we are comfortable with any combination of the remaining three factors and are open to discussing their individual weights with the P3.0 workgroup.
4. Do you agree with the overall weight (percentage) of 10% assigned to Accessibility/Connectivity criteria only for the Regional Impact Category? If not, why not?
MPO and Metropolitan Mayor's Coalition response: Okay but do not support using it at the Division level
RPO response: The weight of 10% at the Regional level is acceptable.

The Department's staff further reviewed the scoring components and refined the measures to ensure a data driven quantifiable approach. The refinements were shared with the P3.0 workgroup prior to its September 30th meeting. At that meeting the P3.0 workgroup reached consensus and recommended the following:

- P3.0 workgroup recommended dropping Congestion and Travel Time savings components since they were duplicative.
- P3.0 workgroup reviewed the potential use of unemployment rates by county (vs. use of Commerce Tier designations) and decided to stick with Tier designations. The unemployment rates fluctuated monthly and would be difficult to scale for scoring purposes. Comments were cited that the Tier designations are published and accepted and their use would also show the working partnership between two state agencies. P3.0 workgroup also recommended a stratification of the scoring (100, 67, or 33 points) for this subcomponent.
- P3.0 workgroup accepted the Department's commute time calculation as proposed.
- P3.0 workgroup accepted the Department's upgrade facility component as proposed.

The above P3.0 workgroup recommendation to include the Accessibility/Connectivity criteria to score highway projects in the Regional Impact category would therefore result in the following use of criteria and associated percent weights:

[Travel Time] Benefit/Cost = 25%
 Congestion = 25%
 Safety = 10%
Accessibility/Connectivity = 10%
 Total = 70%

2. Normalization minimums (90% highways, 4% non-highways).

The survey results showed a majority of the P3.0 workgroup suggest leaving proposed P3.0 workgroup recommended minimum percentages as is. One suggestion was raising the non-highway minimum to help tighten the flexible range between highway and non-highway percentages.

At the September 23rd P3.0 workgroup meeting, the following comments were made:

- Many P3.0 workgroup members believe the 90% and 4% minimums were applicable to the full STI funding amounts (not just the combined amounts of the Regional Impact and Division Needs Categories). They reached consensus that this was the intention of the previous P3.0 workgroup recommendations. They thought that these percentages were more reflective of historical spending and did not need to be limited to funding amounts in the combined Regional Impact and Division Needs Categories.
- SPOT was asked to review the data and bring clarification to the September 30th P3.0 workgroup meeting regarding how the application of the minimum percentages would be applied in the programming process and where the percentages reflect total dollars or only State dollars associated with capital expenditures from the Highway Trust Fund.

The Metro Mayors have a desire to see a higher level of spending on the non-highway modes more reflective of their community's expressed desires, but out of deference to the legislative discussion about potentially increasing the highway spending floor the Mayors will, for now, support the 90% / 4% floors.

The P3.0 workgroup reached consensus that recommends NCDOT staff clarify the programming application of the 4% minimum for non-highways is to be applicable to the full funding of the STI law (across all three funding categories – Statewide Mobility, Regional Impact, and Division Needs). Also, the Department staff was asked to review the historical expenditures and provide additional information/clarification at the September 30th, 2013 P3.0 workgroup meeting.

At the September 30th P3.0 workgroup meeting Department staff provided additional context and background information on the historical budgeted and expenditure amounts as requested. Department staff pointed out that only freight rail, airport improvements, and highway projects are eligible for funding in the Statewide Mobility Category. If any freight rail or aviation project receives high scores and are programmed, their costs would count towards the 4% non-highway minimum approach advocated by the P3.0 workgroup.

The consensus of the P3.0 workgroup was to raise the minimum floor of investment for highways to 92% and to keep the minimum of 4% for non-highway modes and to apply both of these percentages across all three STI funding categories.

3. Local Input Distribution

Following the September 10th JLTOC meeting, the Department surveyed the P3.0 workgroup members. The results showed there is clear and widespread support to reduce the local input scoring share of the DE's. Compiled results indicated some local government officials preferred the entire local share to be at the MPO/RPO level but these were in the minority of those seeking changes to the current equal sharing.

- In the Regional Impact category the majority of RPOs prefer DE's at 10% and MPO/RPO's at 20%. In the Division Needs category the preference was DE at 20% and MPO/RPO's at 30%.
- In the Regional Impact category the majority of MPOs prefer DE's at 12% and MPO/RPO's at 18%. In the Division Needs category the preference was DE at 15% and MPO/RPO's at 35%.
- DE's were willing to accept a share of 10% and MPO/RPO's at 20% in Regional Impact and DE's at 20% and MPO/RPO at 30% in the Division Needs category.

At the September 23rd P3.0 workgroup meeting the MPO Association representative stated that although the survey results above were correctly reported, the MPO Association would accept the same percentages as recommended by the RPOs and the DE's. The Association of County Commissioners representative reported their members had proposed higher percentages for MPOs/RPOs. The P3.0 workgroup then reached consensus to accept the 10%/20% split at the Regional Impact Category and 20%/30% percent split in the Division Needs category.

4. Review the alternate investment strategy for highway projects in the Regional and Division categories.

The survey results indicated widespread support for allowing and encouraging alternate strategies because communities can prioritize projects that best meet their unique needs and vision. Respondents also cited the efforts expended to secure

unanimous agreement regarding the alternative strategy in these two Regions and the fact that limiting the criteria to just the Regional Impact and Division Needs categories did not harm other areas.

At the September 23rd P3.0 workgroup meeting, P3.0 workgroup members acknowledged the efforts of the planners in the east and their ability to successfully gain unanimous agreement for an investment strategy representative of their regional needs. Some P3.0 workgroup members expressed satisfaction that the default criteria is also appropriate for their regional impact and division needs eligible projects and therefore did not pursue an alternate strategy. Other P3.0 workgroup members expressed interest in revisiting this option in P4.0. One person noted that there are facilities (such as I-40 and I-26) in his region in which maintaining mobility is critical. Others mentioned that planners at the MPO and RPO level understand the importance of also applying local input points to eligible statewide mobility projects which cascade down. They also however want to balance this with applying enough local input points to projects which connect to such facilities so that smaller roads that lead to the statewide mobility roadways can also score well. One person noted that this is particularly important in the mountains where having good reliever routes is critical when incidents occur on interstates. Another person reiterated the importance of the criteria their region selected due to the fact that roads that lead into and out of bases and ports are a huge part of their economy.

The P3.0 workgroup then reached consensus to keep the currently proposed alternate investment strategy approach.

5. Revisit considering whether to use the same variables/criteria to score projects across all modes.

The survey results indicated near unanimous agreement that a common set of criteria cannot be used. Different modes serve different purposes and therefore varying criteria needed to reflect different outcomes. Two responses were received for continuing to research and study ideas for a common set of criteria in P4.0.

At the September 23rd P3.0 workgroup meeting, the following comments were heard: One person indicated that Benefit/Cost could be the sole criteria. Another comment suggested safety could be used as a potential common variable.

Another comment suggested involving the Office of State Budget and Management who are hiring more economists to assist with such an analysis and also more modeling tools might be available which could be revisited in P4.0.

The P3.0 workgroup was thanked for their efforts in developing criteria in each mode in an effort to ensure the best projects in that mode receive the highest scores. However, in P4.0 one of the most important challenges will be to think bigger picture in that “will this process deliver the best transportation system?” In other words, the purpose of the STI is to “move people and goods, connect people and places” and the P3.0 workgroup needs to think more globally in developing a prioritization process across all modes that meet this purpose. An outstanding effort has been made to meet the letter and intent of the STI but in P4.0, the need to develop one set of criteria to evaluate all projects must be a high priority. If similar criteria can be found, then normalization should not be an issue.

The P3.0 workgroup then reached consensus of keeping the currently proposed approach of varying criteria and individual scoring for each mode but revisit the issue in P4.0.

6. Examine the use of the unemployment rate in the Rail Accessibility scoring criteria.

The survey results indicated that some P3.0 workgroup members did not fully understand the issue but clearly supported if the issue can be resolved by the Rail division, they would agree to the solution because this was not viewed as a major issue.

At the September 23rd P3.0 workgroup meeting, the Rail Division provided a proposed approach that utilizes Geographic Information System (GIS) technology to draw a buffer (or Employment Opportunity Catchment Area) around the project area versus using only the highest county unemployment rate in the calculation. The size of the EOCA will vary, according to whether a county is designated as rural or urban. For the portion of a project within an urban county, the EOCA radius is 12 miles. For the portion of a project within a rural county, the EOCA radius is 16 miles. These distances were determined based on the 2009 National Household Travel Survey by Federal Highway Administration (FHWA) and represent the average commuting distance for urban areas and rural areas. The Rail Division has established that urban counties (30 NC counties) are those that are non-outlying Metropolitan Statistical Areas, according to current Office of State Budget and Management data. All other counties (70 NC counties) are considered rural.
<http://www.census.gov/population/metro/data/metrodef.html>

Once the appropriate EOCA is drawn around a project, the percentage of the total EOCA (square miles) in each county is calculated. Each county’s unemployment rate is multiplied by its EOCA percentage to determine a weighted unemployment rate. All of the weighted unemployment rates are summed, and this total weighted unemployment rate is now used as the Weighted Unemployment Rate in the Accessibility calculation (which has not changed).

The P3.0 workgroup then reached consensus to accept the revised scoring criteria presented by the Rail Division.

SECTION II. DEPARTMENT RECOMMENDATIONS

The Department has carefully reviewed each of the six items and recommendations from the P3.0 workgroup regarding their recommendation. A brief summary follows:

1. **Accessibility/Connectivity Criteria for highway projects in the Regional Impact and Division Needs categories.** The Department has reviewed the P3.0 workgroup's recommendations agrees with the multi-component scoring approach outlined below:

- **20% - County Tier Designation** – Points are based on the Department of Commerce's county tier designation and the traffic volume along the roadway. The county tier designation in which the project is located is first determined, and then points are based on traffic volumes along the roadway (for projects on new location, traffic volumes are derived from the parallel route).
- **40% - Does the project upgrade how the roadway functions?** – Points are based on whether the project upgrades the roadway to one which provides a higher level of mobility by enhancing traffic flow, eliminating/bypassing signalized sections, increasing control of access and accounting for the traffic volume along the roadway. The eligibility of projects is based on the existing facility type classification and the proposed facility type classification. The following combinations are eligible:

Existing Facility Type (From)	Project Facility Type (To)
Two Lane Highway	Freeway
Two Lane Highway	Multilane Highway
Two Lane Highway	Superstreet
Multilane Highway	Freeway
Arterial (Signalized Roadway)	Freeway
Arterial (Signalized Roadway)	Multilane Highway
Arterial (Signalized Roadway)	Superstreet
Superstreet	Freeway
Superstreet	Multilane Highway

The following are definitions of the different facility types, listed in order of roadways which provide the highest degree of mobility:

- Freeway – a highway with full control of access with access provided only at interchanges
- Multilane Highway – a roadway with four or more travel lanes (two or more in each direction), at-grade intersections, without any signalized intersections or an occasional signalized intersection, typically in rural areas
- Superstreet – a signalized roadway, where the traffic signals are coordinated in both directions to allow for efficient movement of vehicles; these roadways typically have limited cross-street access
- Two Lane Highway – a roadway with two travel lanes (one in each direction), typically in rural areas
- Arterial – most roadways in urban areas; these roadways typically have signalized intersections and multiple driveways and access points

If a project is eligible, project scores are based on the traffic volume along the roadway.

- **40% - Commuting times by census tracts** – Points are based on the average commuting time in the census tract(s) the project is located in. Commuting time data is derived from 2007-2011 American Community Survey data (the mean travel time to work) via the Census Bureau. If a project crosses more than one census tract with varying commuting times, the points are calculated on the average commuting time based on the length of the project within each tract.

The Department concurs with the P3.0 workgroup recommendation and agrees with the recommended percent 10% weight to be used in the Regional Impact category. The Department also agrees to reduce the Congestion criteria from 30% to 25% and the Benefit/Cost criteria from 30% to 25%. The new Regional Impact quantitative highway criteria scoring (except for those Regions and Divisions with Alternative Investment Strategy) is as follows:

[Travel Time] Benefit/Cost = 25%
Congestion = 25%
Safety = 10%
Accessibility/Connectivity = 10%
Total = 70%

2. Normalization minimums (90% highways, 4% non-highways).

The Department has reviewed the P3.0 workgroup's recommendation but believes there may be some other factors that deserve consideration. If any freight rail or aviation project receive high scores and are programmed in the Statewide Mobility category their costs would count towards the 4% minimum and therefore the potential exists that less funds (and less projects) would be available to program in the Regional Impact and Division Needs categories. Also applying the 4% across the entire STI funding amount would equate to a sizable increase (up to \$24 million more per year) in programming dollars required to be spent on non-highway projects. This would also result in less flexibility for the Department's staff to program the highest scoring projects to meet the State's needs. While the P3.0 workgroup recommends applying the minimums across all STI funding amounts, the Department's recommends the minimums only be applied to the combined amounts in the Regional Impact and Division Needs categories and thus recommends no change to its original August 15th recommendation.

- 3. Local input point distribution.** The Department has received substantial feedback that there needs to be a greater share of local input points at the MPO/RPO level. The Department believes there are solid reasons to continue the equal local point distribution in the Regional Impact and Division Needs categories. For example, an equal sharing confirms an equal partnership exists. The Department's recommendation is to promote both an equal partnership and a more global view of meeting transportation needs of moving people and goods and connecting people and places. The cascading effect built into the STI enhances the ability for DE's to take a broader view of how to address

transportation needs across all modes and individual planning organization boundaries and support the interests of the traveling public. Therefore the Department recommends the following local share distribution:

Regional Impact category: 15% Division Engineers; 15% MPO/RPO
Division Needs category: 20% Division Engineers; 30% MPO/RPO

The Department recommends a change to the P3.0 workgroup recommendation and therefore a change to the August 15th recommendation.

4. **Use of the Alternate Investment Strategy for highway projects in the Regional and Division categories.** The Department has reviewed the P3.0 workgroup's recommendation. The P3.0 workgroup has recommended no change to the earlier recommendation that alternate investment strategies should be allowed. The Department concurs with the recommendation of the P3.0 workgroup and therefore there is no change to the original August 15th recommendation.
5. **Consider using the same variables/criteria to score projects across all modes.** The P3.0 workgroup agreed and reached consensus of keeping the currently proposed approach of varying criteria and individual scoring for each mode in P3.0 but revisiting the issue in P4.0. The Department realizes there needs to be a more global view of prioritizing projects to ensure the best projects will be selected. The P3.0 workgroup will be asked to assist in thinking this through in P4.0. For now, the P3.0 workgroup desires no change in how projects in the modes are scored. The Department concurs with this recommendation and therefore there is no change to the original August 15th recommendation.
6. **Examine the use of the unemployment rate in the Rail Accessibility scoring criteria.** The Department has reviewed the P3.0 workgroup's recommendations. The scoring change is merely a change to one component of the overall rail accessibility scoring criteria. The effect is not expected to result in any significant change in scoring. The Department recommends the revised approach as presented by the Rail Division and as it applies within this rail scoring criteria. This minor technical improvement will be applied to the original rail scoring measure outlined in the August 15 recommendation.