

## **SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION**

### **ITEM 1509-34: Approving the Selection of CRG in Association with RLS Demographics as the Consultants for Year 2040 Demographic Forecasts**

#### **PROPOSAL**

At its September 14, 2015, meeting, the Technical Advisory Committee recommended that the Policy Board approve the selection of CRG (the Center for Governmental Research) of Rochester N.Y., in association with RLS Demographics, of Albany, N.Y. for Year 2040 Demographic Forecasts. The total cost of the project is not to exceed \$50,636.

#### **BACKGROUND**

Population and employment forecasts were adopted by the SJTPO Policy Board in March 2012. These forecasts served as input to the SJTPO Regional Transportation Plan, the South Jersey Travel Demand Model (SJTDM) and the Environmental Justice Analysis that is used in regional transportation planning. These population and employment forecasts were adopted by the SJTPO Policy Board in March 2012.

Since that time, there have been changes to the region's demographic profile, most notably the changes to the Atlantic City casino industry. As we gear up for an update to our 2040 Regional Transportation Plan, we are contracting to update the region's demographic forecast.

This project is to produce a revised set of population, household, and employment projections through 2040 by municipality for 4-county SJTPO region. The contract calls for the consultant to provide:

**Core Data Requirements:** The data collected and forecasted will have specific time, geographic, and seasonal components.

**Data Analysis Component:** The consultant will review existing data projections and assumptions and make necessary adjustments in order to develop accurate and defensible growth forecasts.

**Forecasting Component:** The consultant will prepare forecasts in report format detailing the results of the data analysis to include the methodology for major findings along with the components of each.

**Scenario Building Component:** The consultant will work with SJTPO staff and the TAC to develop different scenarios. These will likely consist of a most likely scenario (business-as-usual) but may also include a low-growth and high growth scenario. As with the Core Data Requirements, all forecasts will be based on the municipal level, and displayed at the municipal, county, and regional levels.

**Technical Memorandum:** The consultant will prepare a technical memorandum that summarizes the adjustments made to the forecasts as well as the future trends. The report must also include a description of the forecast methodology and all underlying assumptions used in generating the forecasts.

The notice of availability of Requests for Proposals was sent to approximately 145 firms. The consultant selection committee received one (1) proposal, which was evaluated and deemed acceptable by the selection committee. The DBE percentage is 0% for this project. It was not feasible for the consultant to subcontract any part of the project out to a DBE firm. If this contract is awarded, the total SJTPO DBE/ESBE participation rate to date for FY 2016 would become 9.8%.

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# Project Understanding

Transportation planning is, by its very nature, an exercise in foresight. Others have the luxury of engaging in idle speculation about the future. Transportation planners are making decisions today that have lasting consequences, consequences that last for decades.

As states and municipalities dramatically expand the number and variety of gaming venues, Atlantic City has watched its market share steadily erode. Once the “pole star” of East Coast gaming, competition has appeared in nearly every state and will become more vigorous as new venues open or established venues expand in New York, Delaware, Maryland, and Pennsylvania, all states that have historically contributed customers to Atlantic City.

Like the decline of the steel industry in Pittsburgh or the auto industry in Detroit, the shrinkage of casino gaming in Atlantic City will alter the course of the economy and community. The South Jersey Transportation Planning Organization (SJTPO) is seeking support for its contingency planning efforts.

The Center for Governmental Research (CGR) and RLS Demographics have teamed up to provide SJTPO with the best combination of economic and demographic forecasting.

## Scope of Work

### Introduction

Development of demographic forecasts is an iterative process which begins with the definition of basic input parameters, definition of the geographic areas, time periods, and demographic detail. Assumptions are made about the course of future events. If those assumptions are borne out by experience, the projections will be accurate.

That is seldom the case, however, as no one can predict future events in nature, the economy or social and cultural habits. Hence, an iterative process is necessary to establish reasonable ranges of future demographic events.

## Economic & Population Impact: Casino Gaming

History is an important part of the analysis as it provides historical bounds on actual experience. If future assumptions are made that extend beyond the historical bounds,

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significant justification will be required for making such assumptions. It is also important to understand the distinction between a projection and a forecast – a projection is simply the mathematical application of base data and a set of assumptions while a forecast is the analyst’s “best guess” at the future outcome.

There are three primary projection methods: demographic, economic, and housing and land use. Demographic methods involve assumptions about the future changes in fertility, mortality, and migration. Economic methods involve assumptions about industry and employment changes and how population will react to those changes. Housing and land use based methods rely on local land use plans, zoning, and assumptions about construction activity. Each of these has advantages and disadvantages but the common characteristic is that they all involve unknown assumptions about the future.

## **Our work begins with the “economic” method**

### **Looking to the past**

The CGR/RLS team plans to ground its analysis of the future of South Jersey by developing a retrospective on the past, particularly a careful analysis of the economic and demographic impact of the growth of casino gaming. Growth and shrinkage of an industry are symmetrical—the economic impact of a contraction will, to some degree, mirror the economic impact of the original expansion.

Casino gaming in Atlantic City was approved by voters in November, 1976 and the first casino opened a year and half later with eight more opening by 1981. Our work will begin with a review of the many studies of the growth and shrinkage of Atlantic City gaming, with an emphasis on developing a reliable range of estimates for the impact of the industry on total employment and population.

### **Report #1: Role of Atlantic City gaming on economic fundamentals and population demographics in the 1980s**

#### **Forecasting the future**

With a solid understanding of the build-up of the casino sector as a foundation, the team will move to develop a better understanding of the current dynamic of the casino gaming marketplace. We will explore the following questions:

- What do we know about the loss in market share over the previous decade?
- How has the loss of core gaming employment been reflected in population demographics?
- What kind of expansion in the regional gaming market is pending or anticipated?

- The advent of table games in Pennsylvania and Delaware casinos in 2010 and in Maryland in 2012 is likely to have had a marked impact on Atlantic City. Documents submitted to the Pennsylvania Gaming Control Board, the Delaware Division of Gaming Enforcement and the Maryland Lottery and Gaming Control Commission will be reviewed for evidence.
- With proposals submitted to the New York Gaming Commission as a foundation, CGR/RLS will explore the level of business the newly-established NYS gaming venues expect to take from Atlantic City.
- What are the likely impacts of casino gambling on the employment base of South Jersey, based on high/medium/low employment totals for Atlantic City casino gaming.

## Task One: Demographic Forecasts

Once the baseline economic forecasts have been developed, the difficult task of connecting the economy to demography begins.

### 1.1 Core Data Requirements

The primary sources for understanding community demographics are the Decennial Census and the American Community Survey. Both sources provide economic, demographic, and housing related data to profile governmental units such as cities, towns, and counties. Communities change and while the community profile from the 2010 Census is now five years old, the Census is still the most accurate baseline measure of demographic characteristics because it is a complete enumeration of the population. Historical census data from 1990 and 2000 provide the most accurate baseline for trend analysis. The American Community Survey (“ACS”) on the other hand is a sample-based survey that provides profiles of detailed characteristics but is limited by the sample size and reliability of the data. Small area data is simply less reliable than data for larger geographic areas. The advantage of the ACS is that it is an annual survey allowing for the measurement of year-to-year change. The most current ACS data is for 2014.

Current and historical employment data come from the U.S. Bureau of Labor Statistics and the New Jersey Department of Labor. Resident employment and unemployment is publicly available for all counties and areas of 25,000 or more. Data on jobs by industry sector is also available and measures shifts in an area’s industry composition and economic activity. Employment and jobs are not the same thing as one employed individual can hold multiple jobs, a characteristic that can greatly impact a tourist area dependent upon the retail and service sectors. Another difference between

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employment and jobs is that data on employment is residence based while data on jobs is employer based.

The current employment projections from the Bureau of Labor Statistics were prepared in 2013 and are for the 10-year period to 2022 for the nation as a whole. Various third-party companies prepare economic forecasts based upon official employment and jobs data and most often driven by national macro-economic drivers. IHS Global Insights, Moody's Analytics, Woods and Poole Economics are examples. HIS Global Insights and Moody's prepare 30 year forecasts for all U.S. counties while Woods and Poole produces forecasts to 2050 for all counties.

The problem with these forecasts are that they are based on the extrapolation of existing trends using nationally-registered algorithms. The CGR/RLS team will begin with one or more of these forecasts as a "baseline," then develop a model unique to South Jersey that is informed by our analysis of the casino gaming market in the East Coast. Again, our goal will be to develop a sound basis for "high/medium/low" growth and demographic forecasts.

These sources will provide all of the core data requirements of the "Non-Summer" population for historical analysis and current characteristics for periods 1990, 2000, 2010 while the 2014 American Community Survey and most current employment data will provide the basis for 2015 for all SJTPO areas. The forecasts will be developed for 2020 and each future 5-year period to 2040 for the SJTPO region and counties.

We will employ a gravity model to allocate the impact of the shift in casino employment to the constituent municipalities.

## **Summer Demographics**

CGR/RLS will employ New Jersey Department of Labor and Workforce Development data on monthly employment by industry by county to establish a baseline for seasonal demographics.

Other data sources employed include Cape May County visitor estimates referencing day-trippers, and various lodging establishments. Traffic counts reported by counties plus reports on vacant housing units will support our analysis.

## **1.2 Data Analysis Component**

The 2012 round of SJTPO forecasts relied heavily on the 2010 Census but at mid-decade, more current demographic data is available through the American Community Survey and the Census Bureau's current population estimates program. These will be use to evaluate the short-term 2012 forecast at 2015 and provide a benchmark for moving forward to 2020 and beyond. Differences between the 2015

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forecast and the most current data will be used to evaluate the components of error, especially in regard to differences in migration.

Our analysis shows significant disparity in population growth rates between the decennial census results for 1990, 2000 and 2010, the Census Bureau's estimates for 2014 and the 2012 SJTPO forecast trends. Growth rates have declined significantly since the 1990 to 2000 period and only Atlantic and Cumberland counties show a positive rate of growth between 2010 and 2014 based on the Census Bureau estimates. The growth trend in the current SJTPO forecasts seem quite unreasonable based on the more current data and are likely driven by the methods of sharing national third-party forecasts to counties and regions.

The Census Bureau's population estimates provide data on the components of change – births, deaths and migration (both foreign and domestic). The understanding of future growth potential is dependent upon understanding the components of change. Millennials continue to delay marriage and childbearing which impacts births. The aging of the Baby Boom generation will result in a dramatic increase in the number of deaths over the projection period. As a result, migration will be the key component of any potential for growth in the region. The current 2040 demographic forecasts do not analyze demographic components of change and there is no explicit handling of migration changes. Analysis of 1990 to 2000 and 2000 to 2010 age-specific migration will be a key component of the proposed data analysis and provide a basis for future assumptions. This analysis will be based on a standard life-table survival rate method of estimating migration by age.

It is important to reconcile population and households. Average household size has been quite stable. There are no indicators nationally that fertility rates are increasing and, in fact, fertility of young women 15 to 24 continues to decline. Given the propensity of the Millennial generation for delayed childbearing and having fewer children, there is little arguing for increasing household size. Analysis of the average household size throughout the region will be the basis for assumptions about future household and housing demand. A stable average household size and increasing population will result in increased demand for housing whereas a declining or stable population will not induce such pressure.

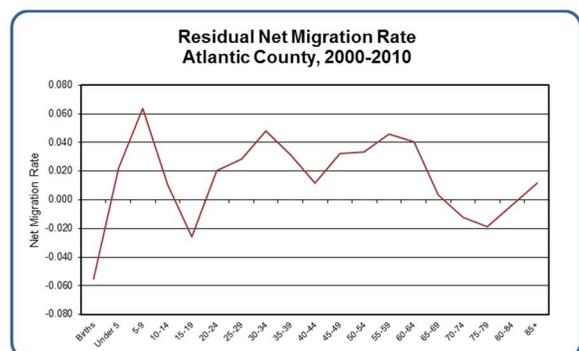
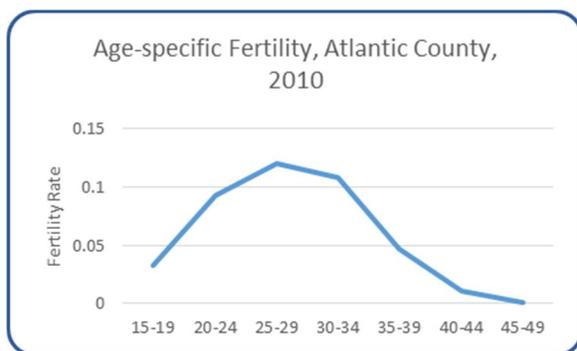
Finally, analysis of the link between the economic change and population change will be the basis for reconciling employment and demographic forecasts. That link is typically through the migration component as increasing employment opportunities tend to result in increasing labor demand and in-migration if the available labor force isn't large enough to meet demand. Analysis of commuting data in the Census Transportation Planning Package (CTPP) from the ACS is necessary to understand the

relationship between resident employment and workplace employment. Job creation in the SJTPO region may draw from a wide employment area resulting impacting transportation needs.

### 1.3 Forecasting Component

We propose an expanded set of demographic forecasts that will incorporate detailed migration and age distribution analysis to improve the overall quality and accuracy of the forecasts. The Baby Boom generation continues to exert important pressures on housing and transportation needs but by 2040, the youngest of the Boomers will be 76 years old and their numbers will be declining rapidly due to higher mortality in the older ages. On the other hand, the Millennial generation, which is larger than the original Baby Boom generation and still growing, will be roughly 40 to 60 years old. These are prime workforce ages and likely to be the next generation of second home owners and Southern New Jersey tourist population. Forecasts that do not take into account changes in the age distribution and migration patterns simply can't capture the demographic composition of the population.

County level forecasts by age will be prepared for each of the SJTPO counties and aggregated to the regional total. A standard demographic cohort component method of projection will be used specifying county level age-specific fertility and migration patterns. The figures that follow illustrate 5-year age patterns for Atlantic County. The fertility pattern shows a typical shift in peak fertility to the late 20's and early 30's. Atlantic's net-migration pattern is quite interesting with high in-migration in the young adult years, positive but slower in-migration in the middle ages and a return to high in-migration through the early retirement ages. Survivorship rates will be based on county level life tables with the exception of Salem County which is too small for construction of a county specific life table. New Jersey or national survival distributions will be used for Salem County.



Migration is the critical and most volatile component of population change. Short-term changes in migration can be closely tied to local economic conditions but in

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many cases, the age pattern of migration, which is more related to life cycle factors, is remarkably stable. That stability allows migration to be controlled by assumptions regarding the total level and this in turn can be related to changes in the economic conditions. If economic conditions argue for increased labor supply then migration rates can be adjusted upward and vice versa. This provides a direct link between employment based economic forecasts and demographic based population forecasts.

Forecasts of households are directly related to the population forecasts. Age-specific headship rates (the proportion of each age group that are householders) and average household size will be applied to the population forecasts by age to generate households. While not explicitly referenced in the project RFP, any local constraints on housing and household development should be incorporated through discussion with local officials.

Municipal forecasts will be restricted to the total population and developed through a share methodology using the county total populations as a control.

### **Preparation of Demographic Forecasts**

Following are the primary tasks in development of the population, household and employment forecasts for the region's counties and municipalities.

- 1) County level age-specific patterns of net-migration will be prepared based on 2000 and 2010 Census results using a standard demographic life-table survival rate methodology. These age patterns are inputs to the cohort-component projection model.
- 2) County level age-specific fertility patterns will be prepared based on the 2010 Census population of women of childbearing age and New Jersey Department of Health vital statistics on births by age of mother. These age patterns are inputs to the cohort-component projection model.
- 3) Population by age and sex will be prepared for each county in 5-year age categories and 5-year period intervals for 2015, 2020, 2025, 2030, 2035, and 2040 using the standard demographic cohort-component projection model.
- 4) Projected households will be based on the projections of total household population (total population minus projected group quarters populations) and average household size. Average household size will be assumed to remain constant throughout the projection period due to lack of any evidence of increasing household size.
- 5) Projected employment....

- 6) Municipal projections of population, households and employment...
- 7) Projections of summer population, employment and households...

The cohort-component model in MS Excel spreadsheets will be provided to SJTPO along with model documentation and training.

### 1.4 Scenario Building Component

The cohort component model is specifically designed to allow rapid scenario development. Fertility is easily controlled through adjustment of the forecast Total Fertility Rate (TFR) and net-migration is controlled through adjustment of the Crude Migration Rate (CMR). The survival rate distributions are quite stable and have minimal impact on the forecast results and future survival distributions will be based on projections of national life table survival ratios from the Centers for Disease Control, National Center for Health Statistics. The TFR and CMR are two user parameters that can be quickly modified by SJTPO to test various scenarios of population change.

### 1.5 Technical Memorandum

The Technical Memorandum will summarize our approach and the details of all estimates and projections.

## Task 2: Public Involvement

As described in the RFP, the CGR/RLS team will attend four public meetings. All data compiled by the consultant team will be presented in a series of **thematic maps**.

Both CGR and RLS Demographics have a long and successful history of leading meaningful public engagement event.

## Project Schedule

The CGR/RLS team agrees to comply with the schedule articulated in the RFP

- Initial draft: December 11, 2015
- Second draft: January 19, 2016
- Final draft: February 26, 2016

Exhibit D – Staffing Plan for Technical Proposal

		Review of fundamentals	Core data and seasonality	Data analysis	Fore-casting	Scenario building	Technical memo	Public engagement mtgs	
<b>Staff Name</b>	<b>Title</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>Total Hrs</b>
<b>Company 1: CGR</b>									
Gardner	Chief Economist & Project Manager	15	20	20	30	10	15	15	125
Gurley-Green	Research Assistant	10	10	15	15	5	5	0	60
Subtotal for Company 1		25	30	35	45	15	20	15	185
<b>Company 2: RLS Demographics</b>									
Scardamalia	Demographer & Project Manager	15	20	20	30	10	15	15	125
Subtotal for Company 2		15	20	20	30	10	15	15	125
<b>Totals</b>		<b>40</b>	<b>50</b>	<b>55</b>	<b>75</b>	<b>25</b>	<b>35</b>	<b>30</b>	<b>310</b>

September 11, 2015

William Schiavi, Manager of Regional Planning  
South Jersey Transportation Planning Organization  
782 South Brewster Road, Unit B6  
Vineland, New Jersey 08361

VIA EMAIL to [wschiavi@sjtpo.org](mailto:wschiavi@sjtpo.org)

Dear Mr. Schiavi:

Pursuant to our telephone discussion on Wednesday, we understand that the South Jersey Transportation Planning Organization (SJTPO) has requested CGR and its partner, RLS Demographics, to review the feasibility of supplementing our team with a Disadvantaged Business Enterprise (DBE).

We recognize SJTPO's sensitivity to this important issue and respect its request that we reexamine our proposal. We support SJTPO's goals of ensuring nondiscrimination in the award of contracts and assisting in the development of DBE firms.

Respectfully, after reviewing our proposed scope as well as the universe of New Jersey-registered DBEs, we have concluded that supplementing our proposed team with a DBE at this time is not feasible within the budget as submitted. The close integration of our proposed tasks – particularly the economic data review, seasonality projections, forecasting and scenario building – would make it extremely difficult to parse out one or more components to a separate firm, as CGR and RLS would still have to be deeply involved in each component. Supplementing with another organization would therefore result in an increase to our budget.

One potential area for DBE involvement may be in the facilitation of on-site public engagement meetings, which we removed from our proposal at SJTPO's request earlier this week in an effort to reduce the project budget. To the extent that those meetings will be implemented by SJTPO, we would certainly be pleased to work with an available DBE as we develop materials to support those meetings.

In the event you need additional information, please do not hesitate to contact me via email ([jstefko@cgr.org](mailto:jstefko@cgr.org)) or telephone (585.327.7065). We are honored to be considered for this project by SJTPO, and look forward to discussing further with you.

Sincerely,



Joseph Stefko  
President and Chief Executive Officer



South Jersey Transportation  
Planning Organization

Phone: (856) 794-1941  
Fax: (856) 794-2549  
Email: [BSchiavi@sjtpo.org](mailto:BSchiavi@sjtpo.org)

Date: 9/14/2015  
To: Dave Heller, Tim Chelius  
From: Bill Schiavi  
Re: DBE Participation for the FY16 Demographics Study

I have asked the selected firm (CRG) to examine the possibility of including a DBE firm in this project. However, because of the nature of this project, it is not feasible to include another firm under the present budget.

CGR and RLS would still have to be deeply involved in any task that would be parsed out to another firm. Therefore the CRG and RLS effort would not be reduced enough to off-set the additional cost of adding another contractor.

CRG has provided a memo with a detailed explanation. That memo and this memo will become part of the files for this project: The FY 2016 SJTPO Year 2040 Demographic Forecasts 2040 RTP Update (FY 2016).

**SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION**

**RESOLUTION 1509-34: Approving the Selection of CRG in Association with RLS Demographics as the Consultants for Year 2040 Demographic Forecasts**

WHEREAS, the South Jersey Transportation Planning Organization (SJTPPO) is the Metropolitan Planning Organization (MPO) designated under federal law for the southern region of New Jersey, including Atlantic, Cape May, Cumberland and Salem Counties; and

WHEREAS, Federal Highway Administration planning funds are programmed into the Fiscal Year 2016 SJTPPO Unified Planning for Professional and Technical Services; and

WHEREAS, a Consultant Selection Committee, consisting of a representative of the Cumberland County Planning Department, and members of the SJTPPO staff was formed to recommend the selection of a consultant for the preparation of this study; and

WHEREAS, the SJTPPO Technical Advisory Committee, at their meeting of September 14, 2015 approved the membership of the selection committee; and

WHEREAS, the SJTPPO Technical Advisory Committee, at their meeting of September 14, 2015 approved the committee's selection of CRG (The Center for Governmental Research) of Rochester, N.Y. in association with RLS Demographics of Albany, N.Y.; and

NOW THEREFORE BE IT RESOLVED, that the Policy Board of the South Jersey Transportation Planning Organization hereby approves the selection of the above consultant for the preparation of the SJTPPO Year 2040 Demographic Forecasts with a maximum fee of \$50,636; and

BE IT FURTHER RESOLVED, that the Policy Board requests that the South Jersey Transportation Authority execute the appropriate contractual arrangements with the consultant on behalf of the SJTPPO.

BE IT FURTHER RESOLVED, that the Policy Board authorizes the Executive Director to execute scope of work and cost modifications to the original contract amount, provided that funding is available.

**Certification**

I hereby certify that the foregoing is a correct and true copy of a resolution adopted by the Policy Board of the South Jersey Transportation Planning Organization at its meeting of September 28, 2015.

  
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Will Pauls, Secretary/Treasurer