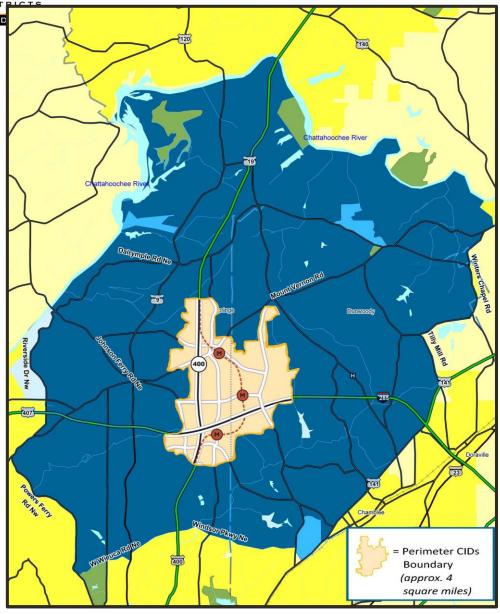
# **PCIDs Economic Analysis**



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## **Executive Summary**

This study was commissioned by the Perimeter Community Improvement Districts (PCIDs) to provide an Economic Impact Analysis of three, large-scale, transportation infrastructure projects within the PCIDs. This study assesses the current and future economic impacts to local businesses, families, and public revenues as a result of these projects.

The Balmoral Group's team of experts performed the Economic Impact Analysis to gain an in-depth understanding of what the future holds for consumer spending, businesses, and government revenues. Estimates were completed of how the GA 400 / Hammond Drive Half-Diamond Interchange, the I-285 / Ashford Dunwoody Road Diverging Diamond Interchange (DDI), and the I-285/GA 400 Interchange Reconstruction capital projects, drive employment, payroll, and business spending. Due to the complex relationship between major capital projects, fiscal policy, and economic growth, this study incorporates unique methodologies and the best available data from Fulton and DeKalb Counties, the Atlanta Regional Commission (ARC), and the Georgia Department of Transportation (GDOT).

Importantly, the last five years (2008 – 2013) saw the mix of jobs within the PCIDs migrate toward higherwage, and often technology oriented, jobs as a greater component of the PCIDs employment – the opposite of what many communities experienced. On average, wages in the PCIDs grew almost 12% while wages in the greater Atlanta Metropolitan Statistical Area (MSA) grew less than 1% for the same time period. Higher wages generate higher spending and income effects in economic impacts. Recent announcements that the PCIDs will become the new location of sought-after companies will cement and amplify this trend.

The payoffs realized on the transportation investments made the by the PCIDs and their partners demonstrate sound investment decisions. The economic impact models run for this project forecast more than \$ 200 million in output, 6,000 jobs, and \$ 110 million in personal income will be generated within the PCIDs alone from the three projects evaluated. This information can be shared with potential tenants, investment partners and community decision makers to support future discussions regarding investments and the expected returns through income, spending, and employment.

#### **Economic Impact Estimates for Transportation Improvements, First Ten Years**

All units in \$ (except for jobs)	GA / 400 Hammond Drive Half-Diamond Interchange	I-285 / Ashford-Dunwoody Road Diverging Diamond Interchange	I-285 / GA 400 Interchange Reconstruction
Output <sup>1</sup>	18,787,980	50,546,288	146,320,430
Gross Regional Product <sup>2</sup>	11,758,240	31,649,364	92,156,106
Employment (No. of jobs) <sup>3</sup>	67	2,110	3,715
Personal Income <sup>4</sup>	6,763,326	16,926,732	86,803,712

Source: TBG Work Product

- Output is defined as the value during the first ten years of the additional goods and services produced in the study area due to the indicated projects.
- <sup>2</sup> Gross Regional Product is comparable to GDP, and includes the sum of labor income (wages and salaries), other property income (profits, rents, dividends and royalties), and business taxes (excise, sales, property taxes and fees).
- 3 Employment includes the number of full-time and part-time jobs created due to the indicated project activities.
- Income is the sum of wages, salaries, proprietor's income, profits, rents, royalties, and dividends due to the indicated project activities.



During the development of the PCIDs Economic Impact Report, two major corporate relocation announcements occurred: State Farms new employment hub and Mercedes Benz' corporate headquarters relocation to PCIDs. Additional economic impact analysis is provided herein detailing the specific impacts expected from the two announcements. With direct employment impacts of 3,000 jobs for the two firms alone, and factoring in final demand created by the new jobs, the total impact from the two announcements is more than \$400,000 per job.

At the request of the PCIDs, the Central Perimeter Market (CPM) area was identified and quantified, for comparison to the PCIDs and as reference. The development activity and transportation infrastructure decisions that happen within this larger market area affect the PCIDs jurisdiction – and vice versa.

Rigorous analysis and econometric modeling was performed to prepare the estimates contained herein. The work could not have been completed without substantial efforts provided by others. The Balmoral Group greatly appreciates the assistance provided by Jennifer Harper and Tammy Thompson of the PCIDs, Colby Lancelin and Jim Skinner of ARC, and Lauren Leary and Steve Cote of RS&H.

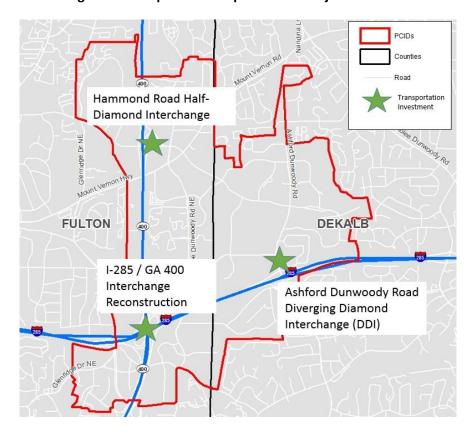
The Perimeter Community Improvement Districts (PCIDs), representing both the Central (DeKalb) and Fulton Perimeter CIDs, are self-taxing districts that use additional property taxes to help accelerate needed transportation and infrastructure improvement projects. The Districts are within the counties of Fulton and DeKalb and the cities of Sandy Springs, Brookhaven and Dunwoody.



## **Estimated Economic Impact of Capital Projects**

The Economic Impact of three transportation capital projects funded in part by the PCIDs has been estimated. Specific impacts were estimated for employment, payroll, and purchases/supplies. The projects assessed included the GA 400 / Hammond Drive Half-Diamond Interchange, the I-285 / Ashford-Dunwoody Road Diverging Diamond Interchange, and the I-285/GA 400 Interchange Reconstruction. These three projects differ in size and scope, but each positively affects the transportation system within this growing, dynamic area north of the City of Atlanta.

In 2012, the Hammond Drive Half-Diamond Interchange was constructed to replace the Hammond Drive Bridge over GA 400. It is the first phase of a larger project which will include collector-distributor (CD) lanes from I-285 to Spalding Drive. The I-285 / Ashford Dunwoody Road project replaced a partial cloverleaf interchange with a diverging diamond to increase the flow of traffic and reduce congestion. This project was completed in 2011. The I-285 / GA 400 interchange reconstruction project is an important project for the State of Georgia and has been called a priority by the Governor. It is still in the design stages with an estimated start date in 2017. **Figure 1** below shows the locations of these three projects within the PCIDs. Detailed project information from the Georgia Department of Transportation is included in the Appendix.



**Figure 1. Transportation Improvement Project Locations** 



## **Economic Impact Model**

**Figure 2** shows the cycle that economic impact models attempt to capture, referred to as regional inputoutput modeling. Changes in spending, employment, and ultimately tax revenues are calculated by the models. The changes are based on regional relationships reflecting county-specific composition of industries, population centers, and supply chains, which are disrupted when a transportation improvement occurs. The analysis incorporates productivity and competitiveness benefits due to the concentration of economic activity in cities and metropolitan areas, and to the clustering of industries.

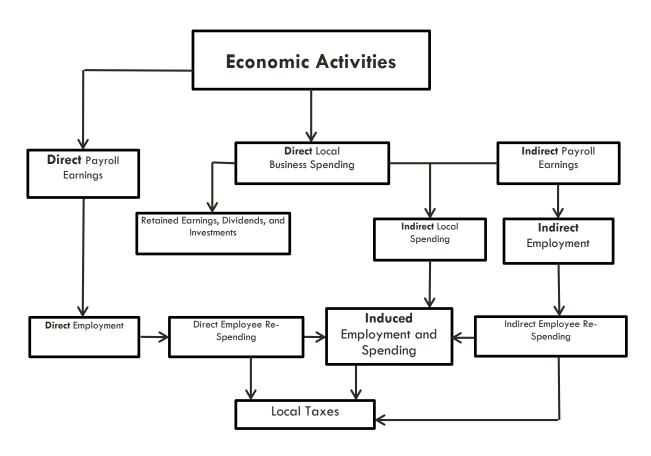


Figure 2. Economic Impact Spending Model

Source: TBG work product

Transportation improvements not only positively affect congestion and travel time but also change the equilibrium of spending flows into and out of each county based on their interdependence in complex ways that are unique to the areas evaluated and to the projects under consideration. Economic impact estimates relating to the transportation projects in the Atlanta metro area are generally prepared under the auspices of the Atlanta Regional Commission (ARC). REMI™ and REMI Transight™, both dynamic models, have been used to estimate the benefits of various transportation improvements for the metro area, 10 and 20 county area, and the rest of the State of Georgia. REMI TranSight™ is designed to allow users to test alternative transportation changes and estimate short and long-term impact on jobs, income, population, and other economic variables.



The economic impacts estimated in this study are based on input-output (I-O) analysis and models. I-O analysis is a standard technique for estimating the secondary (indirect and induced) economic consequences, or impacts, that occur when there is a change in the flow of dollars and jobs into or out of a regional economy. I-O models are mathematical representations of an economy formulated in terms of transactions between industries, governments, employees, and households (Schaffer, 1999). These models are based on detailed business and demographic data collected by agencies of the Federal and State governments. From these models, industry level and aggregate economic multipliers are calculated, and then used to estimate indirect and induced impacts or effects. Indirect effects occur as businesses change the amount of inputs purchased through the supply chain to produce the goods and services purchased in the initial (direct) transactions. Additional induced effects occur as household spending responds to changes in employee and proprietor earnings.

The types of economic impacts typically estimated with I-O models include output (calculated from gross sales), employment (total number of jobs added), and total value-added (which excludes the purchase of intermediate inputs). Total value added is comparable to gross domestic product (GDP, and includes the sum of labor income (wages and salaries), other property income (profits, rents, dividends and royalties), and business taxes (excise, sales, property taxes and fees). Each of these measures represents a different way of assessing the size or contribution of a particular activity or event, such as a large-scale transportation improvement project, to a regional or national economy.

## **Approach & Methodology**

## **Underlying Market Conditions**

Detailed analysis was conducted of key economic metrics for conditions prior to the announcement of the indicated projects, and five years later. Investment decisions are generally made years before they come to fruition (are constructed), and the announcement of planned transportation improvement projects can have dramatic effects on investors' decisions about where to purchase property, locate employees, or upgrade facilities. Accordingly, information was compiled about industry revenues, employment, wages, and shifts for 2008 and 2013. **Table 1** shows the relative mix of wages by sector for the two time periods.<sup>[1]</sup>

<sup>[1]</sup> For purposes of presentation, industry sectors have been aggregated to Supersector level. Supersectors are groupings of related North American Industry Classification System (NAICS) sectors, established by the US Economic Classification Policy Committee.



Table 1. Change in Wages by Sector, 2008-2013.

	Average 2008	Average 2013	
Sector	Annual Wage	<b>Annual Wage</b>	% Change
Manufacturing	\$ 72,644	\$ 98,644	36%
Financial activities	\$ 73,512	\$ 82,243	12%
Trade, transportation, and utilities	\$ 47,164	\$ 52,107	10%
Education and health services	\$ 49,870	\$ 54,571	9%
Other services	\$ 33,003	\$ 35,802	8%
Professional and business services	\$ 66,144	\$ 71,283	8%
Construction	\$ 58,188	\$ 62,036	7%
Leisure and hospitality	\$ 22,594	\$ 23,785	5%
Information	\$ 92,248	\$ 87,440	-5%

Source: Bureau of Labor and Statistics

As shown in **Table 1**, substantial increases in wages have occurred during the 5-year period. Key sectors include: Financial Activities (finance, insurance and real estate companies) and Trade, Transportation, and Utilities, which encompasses positions in wholesale trade, warehousing and utilities businesses. The manufacturing sector, while not a primary industry within the PCIDs, has undergone the largest percentage gain in wages. The sector includes a wide variety of business types, such as chemicals, computer and electronics products, and transportation equipment – all of which are fully capable of supporting high tech firms

**Figure 3** shows the composition of jobs by industry sector in 2008 and 2013, respectively. The increase in employment and in shift to higher-skilled jobs was accompanied by an increase in corresponding wages. The industry composition also affects business revenues, which is shown in **Figure 4**.



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Figure 3. Employment by Sector, 2008 and 2013

Source: TBG work product based on data from Nielsen Site Reports and Bureau of Labor Statistics

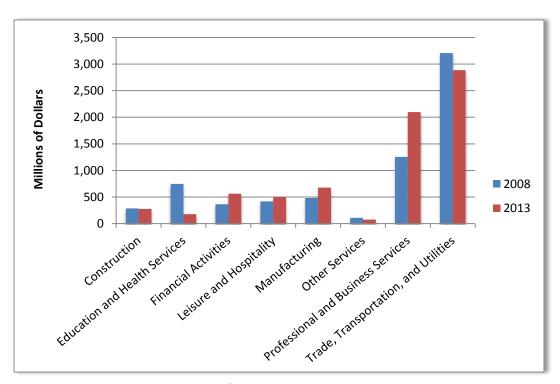


Figure 4. Business Revenues by Sector, 2008 and 2013.

Source: U.S. Census Bureau, 2011 Report of Organization



Based on the analysis, the PCIDs' employment has shown significant improvement relative to the surrounding area. While the Atlanta MSA's total employment declined by 1% between 2008 and 2013, the PCIDs' total employment grew by 2%. More significantly, due to the mix of employment sectors within the PCIDs' jurisdiction, wage growth outperformed local and national averages. Growth of average annual wage across all sectors in the PCIDs is estimated to be 11.70% versus the MSA's growth rate of just 0.77% for the same time period. This is a significant difference in growth and is another indicator of the vitality of the PCIDs.

Additionally, the growth of average annual wages has implications for the scale of effects expected from the capital projects under analysis; to the extent that the projects amplify wage growth, returns will be above average, and vice versa.

#### **Meta-Analysis**

The PCIDs comprise a 4 mile area of portions of Fulton and DeKalb Counties. The PCIDs are a relatively small area to consider economic impacts. The broadly used models for estimating economic impact all operate at the county or larger levels. In order to gain a reasonable estimate of the effects of the listed capital projects, a meta-analysis of regional models which were completed for several other transportation improvement projects in the area were evaluated for context, and to provide upper and lower bounds for the PCIDs-specific estimates. The models included estimates of employment effects for the following projects:

- The GA 400 / Hammond Drive Interchange Reconfiguration a previous design concept that was not the design ultimately constructed
- Bethlehem Rd and I 75 S new interchange
- SR 138 (Stockbridge Road to I-85 S arterial widening
- I-285 NW Managed Lanes project a previous concept that is not the final design
- Gainesville NE corridor Commuter Rail Service Extension
- A global referendum model evaluated potential cumulative impacts of the Transportation Investment Act of 2010 (TIA) nominated projects

The models, which were previously run by the Atlanta Regional Commission, were prepared for different reasons and not directly comparable to the projects under consideration for the study at hand. However, they provided a foundation upon which the PCIDs transportation projects could be analysed. By regressing the output from previously completed models on the projects' costs and travel demand change inputs, the meta-analysis provides coefficients for project parameters that are applied to the three transportation improvement projects within the PCIDs. The meta-analysis provides slope coefficients for the capital expenditure impacts and travel demand impacts, and intercept coefficients for the project physical aspects (project type, etc.).

Meta-analyses were conducted for employment impacts, output impacts, and gross regional product (GRP) impacts. Simulations using the models' estimated coefficients and covariance matrices were iterated 1,000 times to converge on the average values of the expected impacts for the PCIDs. Average income impacts were calculated on a jobs-to-income scale due to restrictions of available information from the models examined in the meta-analysis.



As all of the estimates were prepared at a different scale than that of the PCIDs, the impacts were further evaluated on a ratio basis compared to the scale under consideration. For example, some projects were analysed at both the Fulton County and 10-county Atlanta regional area. Rather than scaling down these broader impacts uniformly, the application of tailored regional economic ratios to calibrate the estimates to the PCIDs provides the best available adjustment to evaluate the area of interest. Using the proportion of employment impacts that accrued to each component, a scaling factor for the PCIDs was generated for each project.

It is noteworthy that input-output models, and travel demand models in particular, are not without controversy. By definition, the estimates are approximate.

## **Results**

In accordance with the scope, estimates were calculated using the indicated techniques for employment, output, gross regional product, and income. **Table 2** shows the results for each of the projects, for the PCIDs area.

Table 2. Economic Impact Estimates for Transportation Improvements, First Ten Years

All units in \$ (except for jobs)	Н	GA 400 / mmond Drive alf-Diamond Interchange	Dive	Ashford- nwoody Road erging Diamond erchange (DDI)	I-285 / GA 400 Interchange econstruction
Output <sup>1</sup>	\$	18,787,980	\$	50,546,288	\$ 146,320,430
Gross Regional Product <sup>2</sup>	\$	11,758,240	\$	31,649,364	\$ 92,156,106
Employment (No. of jobs) <sup>3</sup>		67		2,110	3,715
Personal Income <sup>4</sup>	\$	6,763,326	\$	16,926,732	\$ 86,803,712

Source: TBG work product based on data from US Census and Atlanta Regional Commission

The results show substantial economic impacts from the three transportation capital improvement projects. The benefits from the GA 400 / Hammond Drive Half-Diamond project focus on cost savings, accruing to drivers as their patterns shift to absorb this efficiency. The project also increases output, gross regional product, and personal income by more than \$6 million dollars within the first 10 years. The Ashford-Dunwoody Road DDI effects are more pronounced in all components, potentially producing 2,110 jobs over ten years, with \$ 16 million in income effects and more than \$ 30 million in value added over ten years.



<sup>&</sup>lt;sup>1</sup> Output is defined as the value during the first ten years of the additional goods and services produced in the study area due to the indicated projects.

<sup>&</sup>lt;sup>2</sup> Gross Regional Product is comparable to GDP, and includes the sum of labor income (wages and salaries), other property income (profits, rents, dividends and royalties), and business taxes (excise, sales, property taxes and fees).

<sup>3</sup> Employment includes the number of full-time and part-time jobs created due to the indicated project activities.

Income is the sum of wages, salaries, proprietor's income, profits, rents, royalties, and dividends due to the indicated project activities.

The I-285/GA 400 interchange improvements are massive in scale, and will extend far beyond the tenyear horizon of this study. The impacts to the local economy can be both subtle and complex: shifts in traffic patterns and access are already being cited in property investment decisions and corporate relocation announcements, including that of State Farm and the Mercedes Benz headquarters. In the first ten years, the analysis shows value added to the PCIDs alone of more than \$ 90 million beyond the costs expended. The mix of jobs is expected to maintain the above-average wage growth that the PCIDs experienced during the 2008-2013 recovery period, which in turn generates more spending and personal income growth.



## **Addenda**

## Comparison of the PCIDs and Central Perimeter Market (CPM) Areas

At the request of the PCIDs, the Central Perimeter Market (CPM) area was studied. The development activity and transportation infrastructure decisions that happen within this larger market area affect the PCIDs jurisdiction – and vice versa.

Significant effort was spent identifying the CPM "boundary", which is market-defined, rather than a legal jurisdiction or hard line on a map. Several sources were consulted, including Atlanta based real estate professionals, real estate websites and blogs, and online maps. Based on the information collected, the northern boundary of the Central Perimeter Market runs from GA 400 to the Chattahoochee River, just north of Northridge Road. The southern boundary includes West Wieuca Road and Windsor Parkway. The eastern boundary runs along the Chattahoochee River on the north-east side, stays west of Holcomb Bridge Road, and then follows Winters Chapel Road to Tilly Mill Road to Peachtree Industrial Boulevard. The western boundary includes Powers Ferry Road, a small stretch of Mount Vernon Highway, Riverside Drive, and then borders the Chattahoochee River on the north-west side. **Figure A-1** below illustrates the CPM and PCIDs boundaries.

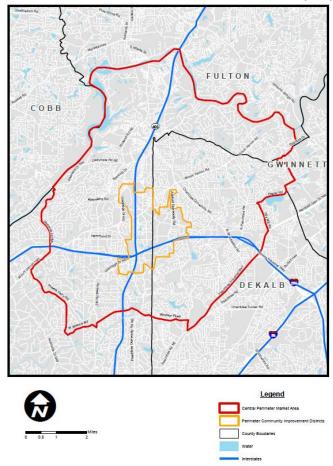


Figure A-1. Central Perimeter Market and Perimeter Community Improvement Boundaries

A comparison of key commercial variables is provided as **Table A-1**.



Table A-1. PCIDs and CPM comparison

	Perimeter Community Improvement Districts (PCIDs)	Central Perimeter Market (CPM)
Office Space	30 million sq ft	35 million sq ft
Market Occupancy	90%	84.4%
Number of Companies	2,352	10,458
Number of Employees	44,179	134,653
Commercial Real Estate Value	\$ 4.6 billion	\$ 5.1 billion

## **Mercedes-Benz and State Farm Office Relocations**

During the development of the PCIDs Economic Impact Report, two major corporate relocation announcements occurred. Mercedes-Benz announced the relocation of its US headquarters, and an estimated 900 employees, to a 12-acre campus in the Sandy Springs area of the PCIDs and State Farm Insurance committed to an employment hub, which is expected to bring 2,500 new employees to the Dunwoody area of the PCIDs. Mercedes-Benz proposes to invest a total of \$93 million in new office space and related improvements and State Farm will lease 585,000 square feet of office space in a project that is currently under construction. The locations of the new offices are described in **Figure A-2.** This addendum to the Report addresses the economic and fiscal impacts of the corporate relocations to the PCIDs.

Mercedes-Benz
Headquarters

Political Counties

Road

Developments

State Farm
Headquarters

PULTON

State Farm
Headquarters

Figure A-2. Map of the State Farm and Mercedes sites



#### Combined Economic Impacts of the Mercedes-Benz and State Farm Office Relocations

The economic impacts to the PCIDs were estimated for the scheduled relocation of the headquarters of Mercedes-Benz to the Sandy Springs area of the PCIDs (from New Jersey) and the creation of a State Farm employment hub in Dunwoody. The estimated economic impacts reflect the total impacts of company operations, as well as leasing and facilities construction per the schedules reported in company announcements, as detailed in **Table A-2**. Total economic impacts include direct, indirect and induced impacts from earnings.

Table A-2. Economic Impacts of the Corporate Re-locations, First Ten Years

	Mercedes-Benz	State Farm	
All units in \$ (except for jobs)	(Fulton County)	(DeKalb County)	Totals
Output <sup>1</sup>	\$ 2,133,670,599	\$ 8,938,438,887	\$11,072,109,486
Gross Regional Product <sup>2</sup>	\$ 1,302,818,922	\$ 5,069,890,803	\$6,372,709,725
Employment (No. of jobs) <sup>3</sup>	1,469	6,685	8,154
Personal Income <sup>4</sup>	\$ 988,919,548	\$ 3,644,958,689	\$ 4,633,878,237

Source: TBG work product based on data from US Census; the Atlanta Regional Commission

- Output is defined as the value during the first ten years of the additional goods and services produced in the study area due to the indicated projects.
- <sup>2</sup> Gross Regional Product is comparable to GDP, and includes the sum of labor income (wages and salaries), other property income (profits, rents, dividends and royalties), and business taxes (excise, sales, property taxes and fees).
- <sup>3</sup> Employment includes the number of full-time and part-time jobs created due to the indicated project activities. Employment reflects the average annual increase during the 10-year period (2015-2024).
- Income is the sum of wages, salaries, proprietor's income, profits, rents, royalties, and dividends due to the indicated project activities.

Over the course of the first ten years (2015-2024), the average annual output of the Mercedes-Benz campus is estimated to be \$262.6 million and the average annual earnings are estimated to be \$121.8 million. For State Farm, the average annual output and earnings are \$1.08 billion and \$439.3 million, respectively. During this time, the Mercedes-Benz relocation and State Farm offices will contribute an estimated \$6.37 billion to the gross regional product.

With respect to employment, over the first ten years, the combined average increase within the PCIDs is estimated to be 3,798 for both employers. The average increase in employees in DeKalb and Fulton Counties outside of the PCIDs (i.e., induced and indirect impacts) is estimated to be 3,811. An additional 544 employees are predicted to be created outside of the two Counties.

#### Combined Fiscal Impacts of the Mercedes-Benz and State Farm Office Relocations

**Table A-3** summarizes the annual fiscal impacts (in 2014 dollars) of the new construction of a \$93 million facility by Mercedes-Benz, the relocation of 900 of its employees to the Sandy Springs are of the PCIDs, and the relocation of 2,500 employees of State Farm to office space being constructed in the Dunwoody area of the PCIDs. The latter facility was assumed to be built regardless of State Farm's tenancy. Annual revenues generated by these projects are estimated to be more than \$30.4 million.



Table A-3. Fiscal Impacts of the Corporate Relocations, First Ten Years
Estimated Average

	Littiliated Average
PCIDs-Generated	Annual Value
Revenue	(\$ millions)
State Income Tax	\$15.12
Corporate Income Tax	8.61
Corporate Net Worth Tax	0.01
Sales Tax	0.00
State of Georgia	1.62
DeKalb HOST	0.31
Fulton LOST	0.09
MARTA	0.40
ELOST	0.40
Property Taxes	
City of Dunwoody	
City of Sandy Springs	0.17
DeKalb County	
Fulton County	0.36
School Board	0.65
PCIDs	0.14
State of Georgia	0.01
Local Business Taxes	1.46
Local Non-Tax General	1.08
Revenues	1.00
Total Revenues	\$30.45

The above estimate of annual fiscal impacts is based on employment and investment announced by the companies. The estimate is conservative in that the specific impact of approximately 3,400 new employees on the local housing market has not been incorporated. Figures 2 and 3 of the PCID Fiscal Analysis Report provide projections of new construction of single- and multi-family residential units within the PCIDs and the reported ranges of values reflect – in part – the demand associated with these employees. However, as an upper bound, were all 3,400 employees to require new individual housing within DeKalb and Fulton Counties, approximately \$426.9 million would be added to appraised value of residential property in the two counties. The total of property-based taxes derived from 3,400 new units is between \$5.7 million and \$6.4 million, depending on how many units would be within the PCIDs themselves.

<sup>&</sup>lt;sup>1</sup> Based on a PCIDs-wide average appraised value of \$125,548 per housing unit (single and multi-family).



#### **Notes to Table A-3**

The general approach for fiscal impacts follows that outlined in the PCIDs Fiscal Impacts Report, however indirect and induced impacts are included wherever applicable.

- State Income Tax for the direct impacts (wages of employees involved with operations) was based on the weighted average wage for the staff mix in Illinois (State Farm) and in New Jersey (Mercedes-Benz), adjusted for exemptions and deductions, and applying the rates from the 2014 Georgia DOR tax table.
- Corporate Income Tax was based on the predicted direct impacts (revenues) of each business, and applying the average rate for net profit before taxes for businesses in management and professional services and Georgia's 6% rate.
- Corporate Net Worth Tax is capped at \$5,000 per business (for businesses worth more than \$22 million); the maximum was assumed.
- Sales taxes were based on the retail share of indirect and induced impacts, the share of non-tax exempt sales calculated previously for the PCIDs (31.8%), and Georgia's 4% rate. Local shares of sales tax revenues were based on the relative share of the indirect and induced impacts within the two counties. MARTA and ELOST receive a full 1% of sales taxes.
- Property taxes were based solely on the construction of the new Mercedes-Benz campus. At current typical area construction costs of \$310/sf, the building value would be \$77.5 million. [Recent sales prices for comparable facilities are no greater than \$221/sq ft, however.] Appraised value is set at 95% of market value and assessed value is 40% of appraised. No consideration was made for other possible property tax exemptions. 2014 millages for all jurisdictions were applied to the assessed value. Increases in property taxes were not estimated for the 3,400 new employees.
- Other local revenues (business taxes, hotel taxes, excise taxes, insurance premiums, etc.) were based on the percent increase in economic activity within the PCIDs resulting from the relocations.
   The predicted total economic impact (including indirect and induced impacts) within the PCIDs is 7.6% of the total commercial revenues.
- Other local non-tax revenues were calculated on a per capita basis and assumed that all new
  employees would reside within the PCIDs in proportion to the current partition of residents been
  the three cities. Consequently, these allocations are upper bounds and would depend in part on
  housing availability in the PCIDs.



## **Georgia Costing Sheets**

Figure A- 3. Detailed Project Information Sheet, GA 400 / Hammond Drive Half-Diamond Interchange

## SR 400 @ HAMMOND DRIVE INTERCHANGE

 Project ID:
 0008415
 Notice to Proceed Date:
 2/4/2009

 Project Manager:
 John Hancock
 Construction Percent Complete:
 94.07%

 Office:
 Innovative Prog. Delivery
 Current Completion Date:
 8/31/2011

 County:
 Fulton
 Work Completion Date:
 1/24/2012

 Congressional District:
 5, 6
 Construction Contract Amount:
 \$18,601,468.00

State Senate District.: C. W. MATTHEWS CONTRACTING CO.,

State House District: Select Another Project

Project Type: Reconstruction/Rehabilitation Design Plan Documents

Project Status: Complete Preconstruction Status Report

Right of Way Authorization: Construction Status Report

Submit feedback to project manager

#### Project Description:

This project replaces the Hammond Drive bridge over SR 400. It is considered the first phase of PI 721850-, SR 400 CD fm I-285 to Spalding Dr. The project will replace the Hammond Drive Bridge and add a new interchange to SR 400 to/from Hammond Drive on the north side of Hammond Drive. This project will add the NB ramps and auxiliary lanes up to Abernathy Road. The new ramps and aux lanes can not be build in their final location therefore considered interim/throw-away. The funding is proposed as follows: The bridge and ramp intersections will be funded by State and Federal dollars. All other interim/throw-away items are to be funded by Sandy Springs/PCID.

Activity ID	Program Year	Cost Estimate	Date of Last Estimate
CST (Construction)	2009	\$20,796,739.00	7/11/2008



## Figure A- 4. Detailed Project Information Sheet, Ashford-Dunwoody Road Diverging Diamond Interchange



## I-285 @ CR 1764/ASHFORD DUNWOODY ROAD

 Project ID:
 0009725
 Notice to Proceed Date:
 8/26/2011

 Project Manager:
 Marlo Clowers
 Construction Percent Complete:
 95.40%

 Office:
 Innovative Prog. Delivery
 Current Completion Date:
 3/31/2013

County: DeKalb Work Completion Date:

Congressional District: 6 Construction Contract Amount: \$5,373,436.71

State Senate District.: Construction Contractor: E. R. SNELL CONTRACTOR, INC.

State House District: Select Another Project

Project Type: Reconstruction/Rehabilitation Design Plan Documents

Project Status: Under Construction Preconstruction Status Report

Right of Way Authorization: Construction Status Report

Submit feedback to project manager

#### Project Description:

The project converts the existing partial cloverleaf interchange into diverging diamond interchange (also known as a double crossover diamond) at the existing overpass of Ashford Dunwoody Road at I-285 located in DeKalb County, Georgia. Improvements would also be made to Ashford Dunwoody Road to accommodate the design elements that would be required for the interchange. The existing bridge across I-285 is not proposed to be widened or replaced. The beginning of the project is at mile log 0.77 on Ashford Dunwoody Road (CR 1764) and the end is at mile log 1.24. The total length of project is 0.47 miles.

Activity ID	Program Year	Cost Estimate	Date of Last Estimate
PE (Preliminary Engineering)	2011	\$26,000.00	2/1/2010
CST (Construction)	2011	\$5,117,502.47	9/20/2010



Figure A- 5. Detailed Project Information Sheet, I-285/GA 400 Interchange Reconstruction

## I-285 @ SR 400 INTERCHANGE RECONSTRUCTION & HOV SYSTEM

Project ID: 0000784 Notice to Proceed Date:

Project Manager: Marlo Clowers Construction Percent Complete: %

Office: Innovative Prog. Delivery Current Completion Date:

County: Fulton Work Completion Date:

Congressional District: 6 Construction Contract Amount: \$0.00

 State Senate District.:
 032
 Construction Contractor:

 State House District:
 052
 Select Another Project

 Project Type:
 Reconstruction/Rehabilitation
 Design Plan Documents

Project Status: Construction Work Program Preconstruction Status Report

Right of Way Authorization: Construction Status Report

More Information...

Submit feedback to project manager

#### Project Description:

The proposed project would reconstruct the system to system interchange by modifying the existing ramps and bridges. The proposed new interchange would be designed to accommodate operational improvements on I-285 and SR 400 and would not preclude the addition of managed lanes on both corridors in the future. This project is part of the revive 285 Environmental Impact Statement (EIS), PI # 0001758.

Activity ID	Program Year	Cost Estimate	Date of Last Estimate
PE (Preliminary Engineering)	2006	\$343,450.00	7/22/2014
SCP (Scoping)	2013	\$2,000,000.00	
PE (Preliminary Engineering)	2014	\$7,197,210.99	7/22/2014
ROW (Right of Way)	2015	\$25,000,000.00	7/14/2014
PE (Preliminary Engineering)	2015	\$25,059,999.75	7/22/2014
ROW (Right of Way)	2016	\$50,000,000.00	7/14/2014
CST (Construction)	2016	\$25,430,000.00	7/14/2014
ROW (Right of Way)	2017	\$49,982,000.00	7/14/2014
CST (Construction)	2017	\$403,400,000.00	7/14/2014
CST (Construction)	2018	\$73,020,000.00	7/14/2014
CST (Construction)	2019	\$66,811,765.51	7/14/2014





## **Top 50 Employers**

As shown below, a list and a map of the Top 50 Employers within the PCIDs jurisdiction, based on the number of employees, was created as a supplemental task. The foundation for this research was an InfoUSA business database purchased specifically for this effort. Businesses within the InfoUSA database were geocoded using ArcGIS 10.3 software to confirm their locations within the PCIDs.

The number of individuals employed at a business can be dynamic due to numerous factors including, but not limited to, an ever changing market and on-going employee turnover. The InfoUSA database is updated on an annual basis, and the majority of the businesses in the PCIDs were surveyed in early 2015.

Employer information was reviewed and counts that appeared unreasonable were flagged. Several of the large employers have headquarter locations within the PCIDs. However, their employee count looked more like a company total number of employees than a site specific number. Due to a concern that some of the employee counts were too high, RS&H staff called a number of businesses to confirm their employee count. Some businesses were able to provide this information while a few could not disclose it based on privacy concerns.

Additional data sources were used to review and validate employee counts including the following:

- 2014 GIS parcel data;
- Google Maps and Street View;
- Online research including company websites, Glassdoor.com, and business reviews; and
- Previous employer counts provided by the PCIDs.

For a few cases in which RS&H obtained multiple, different employee counts for a business, professional judgement was used to select the most reasonable employee count based on known information of the business and the size of office.



## List of the Top 50 Employers by Number of Employees

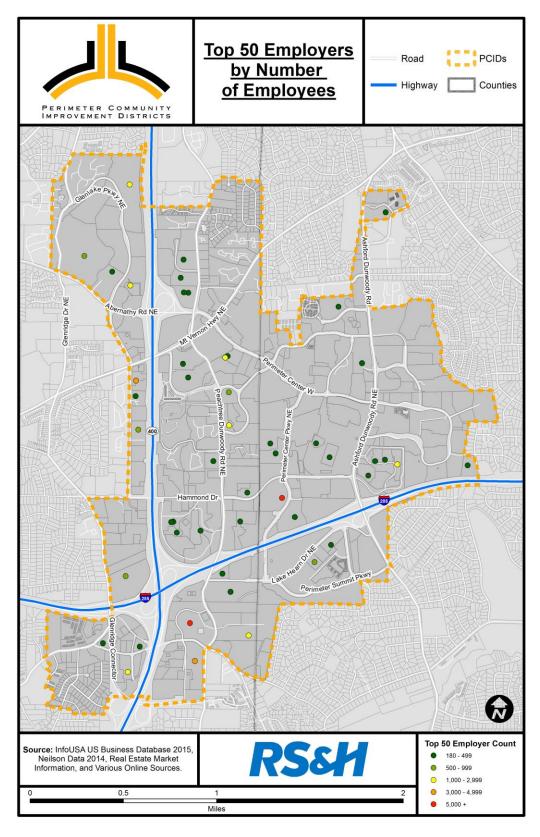
Business Name	Number of Employees
State Farm	5,000
Northside Hospital-Atlanta	5,000
IBM / IBM Internet Security Systems	3,950
Scottish Rite Children's Hosp	3,000
Cox Enterprises Inc	2,005
Newell Rubbermaid Inc	1,000
Emory St Joseph Hospital	2,000
United Parcel Svc Inc	1,678
Intercontinental Hotel Group (IHG)	1,600
Air Watch	1,400
First Data Corp	1,000
Cox Communications Inc	826
Cox Automotive Inc	771
Jas Forwarding USA Inc	700
Mercedes Benz USA	600
Visiting Nurse Health System	600
Nordstrom	450
Convergent Resources Inc	445
Crawford & Co	434
Macy's	411
Global Payments Inc	410
Document Technologies Inc	400
Ventyx	378
Atlanta Journal-Constitution	337
Arby's Restaurant Group Inc	330
Allconnect Inc	315
Axiall Corp	300
BCD Travel	300
Elavon Inc	300
Costco	300
Hanover Insurance Co	300
Noble Systems Corp	300
Southeastern Data Corp Inc	300
Krystal Co	260
Marriott-Perimeter Ctr	254
URS Corp	251
Internap Corp	245
Crowne Plaza-Atlanta Perimeter	245



Byers Engineering Co	225
Morrison Management SpecIsts	224
Intersect Group	212
Equity Loans	201
CBS	200
Christian Alcohol & Drug Rehab	200
Hilton-Atlanta Perimeter Sts	200
Home Depot	200
Q100 Radio	200
SAP America Inc	200
Systel Of Delawale	200
Concourse Athletic Club	190



## Map of the Top 50 Employers by Number of Employees





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