

## PAGE 1

Q1: Which jurisdiction do you represent in the Cooperative Forecasting and Data Subcommittee?

Falls Church

## PAGE 2

Q2: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your baseline employment calculation?

sort, clean-up (zip code coding errors in adjacent localities, duplicative entries etc.) and use a baseline for year of data and interpolate from there.

Q3: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your forecasted employment calculations?

use as baseline for projections

## PAGE 3

Q4: Briefly, how do you use Employment – Space Conversion factors (i.e. square feet of office space per employee) in your forecasts? If relevant, note any differences between forecasting future employment at a.) existing buildings vs. b.) new developments currently in pipeline vs. c.) for parcels that are not currently slated for development or redevelopment Include how zoning, floor area ratios, gross leasable area vs. gross building area, vacancy rates and land use type are considered along the process Note upon which geographic level (employer, building, parcel, block, TAZ or jurisdiction) the factors are applied. Please explain if they are utilized at more than one geographic level.

Use space conversion factors for office .34 employees per 100 sf; retail .35 per 100 sf; restaurant .35 employees per 100 sf and hotel .25 per room for estimates and projections for all - current development, planned and future hypothetical (use same ratios)

No vacancy rate adjustments, except during recessionary periods, zoning and comprehensive plan factor into hypothetical future development net scenarios - geographic areas, census tracts and tazs

We do not use the 1985 SIC - Land Use/Employment Ratios.

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Please explain if they are utilized at more than one geographic level. we compare to them

#### PAGE 5

Q6: How does your jurisdiction currently forecast employment at apartment complexes? Please note whether any Employment – Space Conversion factors or SIC - Land Use/Employment ratios are utilized.

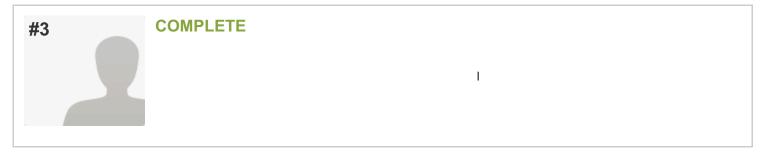
do not forecast employment for residential uses

Q7: Please add anything about your employment forecasting process that would add to COG staff's understanding of the region's Employment – Space Conversion or SIC-Land Use/Employment Ratio needs.

base data is not available frequent to do accurate at-place employment estimates. Recent great recession was good example where drop was not well documented with available data.

Q8: Mina Wright, from the Office of Planning & Design Quality in the Public Buildings Service at the General Services Administration, will be speaking at the next Cooperative Forecasting and Data Subcommittee meeting on Tuesday, February 10. What questions would you like her to address about the Federal government's role in the region or about its office space needs?

What are their current office space ratios, projected ratios and how do they compare to private sector office space ratios?



#### PAGE 1

Q1: Which jurisdiction do you represent in the Cooperative Forecasting and Data Subcommittee?

Frederick County

#### PAGE 2

Q2: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your baseline employment calculation?

We have used InfoUSA number of times between Cooperative Forecasting Rounds for the purpose of verifying baseline job totals between the City and Frederick County.

Q3: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your forecasted employment calculations?

see above.

## PAGE 3

Q4: Briefly, how do you use Employment – Space Conversion factors (i.e. square feet of office space per employee) in your forecasts? If relevant, note any differences between forecasting future employment at a.) existing buildings vs. b.) new developments currently in pipeline vs. c.) for parcels that are not currently slated for development or redevelopment Include how zoning, floor area ratios, gross leasable area vs. gross building area, vacancy rates and land use type are considered along the process Note upon which geographic level (employer, building, parcel, block, TAZ or jurisdiction) the factors are applied. Please explain if they are utilized at more than one geographic level.

The County is in the process of developing a more comprehensive approach to employment forecasting. Current estimation relies on the County's Economic Development office data sources, extraction of parcel level commercial development from approved plans, pipeline development, and land use and zoning changing patterns. State data center (ES202), BLS, BEA, including sources from the U.S. Census and others have been used to determine employment trends by decade. Our aspiration toward developing a more comprehensive approach to forecasting is an ongoing effort.

Employer, TAZ, Jurisdiction,

Please explain if they are utilized at more than one geographic level.

The skeleton of our baseline employment/allocation of jobs is inherent in this document. However, when plotting InfoUSA and other job sources like that of the ES202 we think this 1985 source needs updating. We also have to employ the SIC to NAICs conversion matrix to ensure jobs are correctly reflected and categorized parcel-by-parcel. This is done before percentages of jobs allocations at TAZ level. The 1985 source, therefore, needs to be updated since we've seen some discrepancies in job type within few commercial zoning districts.

#### PAGE 5

Q6: How does your jurisdiction currently forecast employment at apartment complexes? Please note whether any Employment – Space Conversion factors or SIC - Land Use/Employment ratios are utilized.

We're not at this level of detail yet or haven't look in greater detail of various attributes within the SIC - Land Use/Emp we can use to do forecasting; we've only used the job category type to allocate jobs by TAZs.

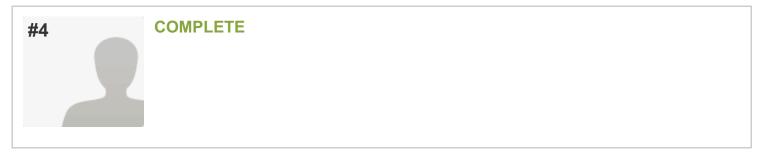
Q7: Please add anything about your employment forecasting process that would add to COG staff's understanding of the region's Employment – Space Conversion or SIC-Land Use/Employment Ratio needs.

Respondent skipped this question

Q8: Mina Wright, from the Office of Planning & Design Quality in the Public Buildings Service at the General Services Administration, will be speaking at the next Cooperative Forecasting and Data Subcommittee meeting on Tuesday, February 10. What questions would you like her to address about the Federal government's role in the region or about its office space needs?

There's been recent talks on Frederick County's growth in employment - in particular construction and retail sectors. What are the prospect for Frederick County to absorbed growth in government offices - in particular Who is coming in and Who is going out? Any BRAC related job likely to impact Frederick County's job changes in the next 5-10 years?

# SIC - Land Use/Employment Ratio and Job Density Study Working GroupBackground Survey



#### PAGE 1

Q1: Which jurisdiction do you represent in the Cooperative Forecasting and Data Subcommittee?

Gaithersburg

# PAGE 2

Q2: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your baseline employment calculation?

The City reviews InfoUSA and similar data to evaluate the accuracy of the City's baseline employement calculated from square feet of nonresidential uses.

Q3: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your forecasted employment calculations?

The City doesn't use InfoUSA or other sources in the forecast empolyment. Instead, the City uses other "sanity check" methods, such as overall growth curve, City's empolyment as a percentage of the County and MWCOG region, review of actual built projects compared to original proposals, etc.

Q4: Briefly, how do you use Employment – Space Conversion factors (i.e. square feet of office space per employee) in your forecasts? If relevant, note any differences between forecasting future employment at a.) existing buildings vs. b.) new developments currently in pipeline vs. c.) for parcels that are not currently slated for development or redevelopment Include how zoning, floor area ratios, gross leasable area vs. gross building area, vacancy rates and land use type are considered along the process Note upon which geographic level (employer, building, parcel, block, TAZ or jurisdiction) the factors are applied. Please explain if they are utilized at more than one geographic level.

For the baseline and short-term (5 and 10 year) forecasts, the City uses the job density factors for existing conditions and pipeline projects. The density factors use gross square feet of building, categorized by general use, for each parcel or condominium phase. The parcels/condo phases are then aggregated for each TAZ and reported as the forecast. Vacancy rates are not directly used in the forecast, as the City conducted a random survey based on BLS data to determine the average employee density for properties within the City, and it was assumed from the BLS data that the vacancy rate was being accounted for, since several properties had little or no employment even though there were large buildings on those properties. For long-term forecasting, the City determines the likely acreage of new development and redevelopment within each TAZ, based on the Master Plan, preliminary talks with developers, high land value ratio of assessed value, and other staff knowledge. These "future development" areas then use a standard formula of 20 dwelling units (households) per acre and 5 jobs per household, which equates to approximately 30,000 sq. ft. of nonresidential floor area per acre and 54 persons per acre. (Note: the two factors used for future development, 20 HH/ac and 5 jobs/HH, are based on development trends from 2005-2009 in the City, and may need to be revised for Round 9, as recent trends show a much lower jobs/HH rate and a higher HH/ac rate.)

#### PAGE 4

Q5: Do you use the 1985 COG memorandum's SIC -Land Use/Employment Ratios at the employer, building, parcel, block, TAZ or jurisdiction levels? We do not use the 1985 SIC - Land Use/Employment Ratios.

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Please explain if they are utilized at more than one geographic level.

The City uses density factors provided by Montgomery County, which have been adjusted by the random sample BLS employment study conducted by City staff in 2012.

## PAGE 5

Q6: How does your jurisdiction currently forecast employment at apartment complexes? Please note whether any Employment – Space Conversion factors or SIC - Land Use/Employment ratios are utilized.

For apartment complexes with known office and amenity area sizes, the City uses those areas and calculates 1 job per 300 sq. ft. (same as office). For older complexes where the actual office and amenity area sq. ft. is unknown, the City uses 1 job (a.k.a. 300 sq. ft.) per 100 dwelling units, with no jobs on site assumed for apartment complexes with less than 100 units. This factor is based on a review of known amenity and office areas within the larger and more recently built apartment complexes in the City.

Q7: Please add anything about your employment forecasting process that would add to COG staff's understanding of the region's Employment – Space Conversion or SIC-Land Use/Employment Ratio needs.

The most surprising finding from the City's 2012 employment study based on BLS data was the number of jobs in wholly-residential areas. The City now uses a factor of 1 job per 34 single family (detached and attached) units.

- Q8: Mina Wright, from the Office of Planning & Design Quality in the Public Buildings Service at the General Services Administration, will be speaking at the next Cooperative Forecasting and Data Subcommittee meeting on Tuesday, February 10. What questions would you like her to address about the Federal government's role in the region or about its office space needs?
- 1) Will GSA continue to lease or is the trend back toward federal ownership of buildings? 2) Any predictions about the near-term future size of government (jobs), based on the now Republican-controlled Congress? 3) Does GSA see a need for non-office buildings for federal agencies, such as research/development or industrial?



## PAGE 1

Q1: Which jurisdiction do you represent in the Cooperative Forecasting and Data Subcommittee?

Loudoun County

## PAGE 2

Q2: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your baseline employment calculation?

The 2010 InfoUSA was provided to us by COG. Anything listed in InfoUSA that was not in the VEC ES-202 database but was of a significant employment size and validated as being in Loudoun is included in the 2010 figures. Until more up-to-date InfoUSA is provided to us from COG, those establishments are assumed to have the same number of employees today and in the future as in 2010.

Q3: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your forecasted employment calculations?

See Answer to #2.

# PAGE 3

Q4: Briefly, how do you use Employment – Space Conversion factors (i.e. square feet of office space per employee) in your forecasts? If relevant, note any differences between forecasting future employment at a.) existing buildings vs. b.) new developments currently in pipeline vs. c.) for parcels that are not currently slated for development or redevelopment Include how zoning, floor area ratios, gross leasable area vs. gross building area, vacancy rates and land use type are considered along the process Note upon which geographic level (employer, building, parcel, block, TAZ or jurisdiction) the factors are applied. Please explain if they are utilized at more than one geographic level.

Forecasted employment equals the sum of existing employment and new employment from new construction. This method is used because most of Loudoun's employment growth is associated with permitted new construction. The new employment from new construction is determined by forecasting square feet by type and using emp/sqft ratios by type along with vacancy rates by type to convert square feet to employment forecasted. The emp/sqft ratios and vacancy rates by type are county level figures. All TAZs use the county level figures for their forecasts.

Employer, Building,

Please explain if they are utilized at more than one geographic level.

Loudoun has its own NAICS conversion tables that is partially based on the 1985 COG SIC conversions. The conversions are applied to establishment data that are sourced from VEC ES-202 and InfoUSA. The conversions are only used for the current existing establishments. Future forecasts of Loudoun County and the TAZs are not based on NAICS data. Instead, future forecasts are assigned COG employment categories simply using Loudoun's employment type categories (e.g. heavy industrial, retail, data center, high density office). Approved pipeline project uses from rezoning applications and byright site plans only specify general categories of allowable uses, but they do not specify detailed uses like NAICS codes. The type of uses that fall into the four COG categories are noted in the 1985 COG SIC transmittal, and Loudoun does follow that much of time when assigning the COG category for future planned projects.

### PAGE 5

Q6: How does your jurisdiction currently forecast employment at apartment complexes? Please note whether any Employment – Space Conversion factors or SIC - Land Use/Employment ratios are utilized.

The clubhouse and leasing facilities of apartments are forecasted in the short-term if permits for new construction were issued in the past year or two. The "other" emp/sqft ratio would be use to convert the permitted sqft to employment. Otherwise forecasts for employment at new apartments have not been considered in Loudoun's forecasts. However, that certainly gives me something to ponder about doing as an improvement to our methods so thanks for bringing this to my attention.

Q7: Please add anything about your employment forecasting process that would add to COG staff's understanding of the region's Employment – Space Conversion or SIC-Land Use/Employment Ratio needs.

The Loudoun County Fiscal Impact Committee Guidelines are the basis for our COG round control totals and TAZ forecasts. We use a top-down method. A link to the Guidelines is found on the County's Demographics and Data website (www.loudoun.gov/demographics). Once on that website click on the "Quick LinK" for the "Fiscal Impact Committee".

Q8: Mina Wright, from the Office of Planning & Design Quality in the Public Buildings Service at the General Services Administration, will be speaking at the next Cooperative Forecasting and Data Subcommittee meeting on Tuesday, February 10. What questions would you like her to address about the Federal government's role in the region or about its office space needs?

It will be important to hear what she believes will be the future trend of federal office empolyment's number of square feet per employee? Does she expect it to be tighter (i.e. fewer square feet per employee)?



# PAGE 1

Q1: Which jurisdiction do you represent in the Cooperative Forecasting and Data Subcommittee?

Prince George's County

## PAGE 2

Q2: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your baseline employment calculation?

The geocoded jobs (InfoUSA or ES202) are assigned to COG TAZs as part of the employment base. Military and self-employed are then counted/calculated and distributed.

Q3: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your forecasted employment calculations?

By helping to calculate baseline employment.

Q4: Briefly, how do you use Employment – Space Conversion factors (i.e. square feet of office space per employee) in your forecasts? If relevant, note any differences between forecasting future employment at a.) existing buildings vs. b.) new developments currently in pipeline vs. c.) for parcels that are not currently slated for development or redevelopment Include how zoning, floor area ratios, gross leasable area vs. gross building area, vacancy rates and land use type are considered along the process Note upon which geographic level (employer, building, parcel, block, TAZ or jurisdiction) the factors are applied. Please explain if they are utilized at more than one geographic level.

Employment – Space Conversion factors are used to fill up vacant space when vacancies are above historical averages/industry standards, for space that is in the development pipeline, and for planned capacity in the future.

For existing buildings with vacancy rates above historical/industry standards an existing employee per square foot of occupied building area is calculated when possible. The result is then used to fill up vacant space up to historical/industry standard vacancy rates.

For pipeline and planned capacity in the future Employment – Space Conversion factors are based on gross building area with an allowance for historical/industry standard vacancy rates.

For planned capacity in the future historical yields by zoning are used to determine gross building area (with an allowance for vacancy rates). If historical yields are not available for the existing zoning build out numbers included in the Master or Sector Plan for the area are considered.

### PAGE 4

Q5: Do you use the 1985 COG memorandum's SIC -Land Use/Employment Ratios at the employer, building, parcel, block, TAZ or jurisdiction levels? Employer, Building,

Please explain if they are utilized at more than one geographic level.

For the base the employer SIC/NAICS is used. For future employment the building type or proposed land use when available is used.

## PAGE 5

Q6: How does your jurisdiction currently forecast employment at apartment complexes? Please note whether any Employment – Space Conversion factors or SIC - Land Use/Employment ratios are utilized.

Included in the base through infoUSA, ES202, CoStar, or The Nielsen Company data. For future average based on existing per number of units.

Q7: Please add anything about your employment forecasting process that would add to COG staff's understanding of the region's Employment – Space Conversion or SIC-Land Use/Employment Ratio needs.

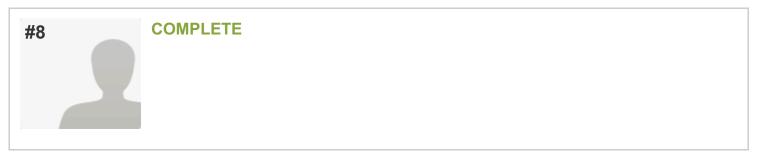
Respondent skipped this question

# SIC - Land Use/Employment Ratio and Job Density Study Working GroupBackground Survey

Q8: Mina Wright, from the Office of Planning & Design Quality in the Public Buildings Service at the General Services Administration, will be speaking at the next Cooperative Forecasting and Data Subcommittee meeting on Tuesday, February 10. What questions would you like her to address about the Federal government's role in the region or about its office space needs?

Respondent skipped this question

# SIC - Land Use/Employment Ratio and Job Density Study Working GroupBackground Survey



#### PAGE 1

Q1: Which jurisdiction do you represent in the Cooperative Forecasting and Data Subcommittee?

**Fairfax County** 

## PAGE 2

# Q2: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your baseline employment calculation?

We use InfoUSA data, VEC data, and local tax assessment records to estimate a baseline calculation. Tax assessment records do not provide an employment figure. However, we take the tax assessment values for the GFA and parcel use and apply an employment factor that best matches the use to generate an employment estimate. Then, all three datasets are compared and one employment figure is selected per address, if possible. While comparing and contrasting all three datasets is time-consuming, we are able to control for short-comings within in each dataset. Large institutions such as the military base, hospitals, local government, GMU, Fairfax County government, and public schools are contacted directly to help establish a baseline.

# Q3: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your forecasted employment calculations?

We also plan to use InfoUSA data to help us validate the job density factors that we use to apply to future development projects. We also use these factors to estimate additional employment absorption for partially-occupied buildings, such as large office buildings.

Q4: Briefly, how do you use Employment – Space Conversion factors (i.e. square feet of office space per employee) in your forecasts? If relevant, note any differences between forecasting future employment at a.) existing buildings vs. b.) new developments currently in pipeline vs. c.) for parcels that are not currently slated for development or redevelopment Include how zoning, floor area ratios, gross leasable area vs. gross building area, vacancy rates and land use type are considered along the process Note upon which geographic level (employer, building, parcel, block, TAZ or jurisdiction) the factors are applied. Please explain if they are utilized at more than one geographic level.

We have a list of employment factors. For forecasting future development, a job density factor is selected that best matches the proposed use. We rely on factors that are gross-floor area (GFA) based because our future development records and tax assessment data capture this unit of measurement. The proposed use is often very general for development projects at the rezoning stage of the development process and a little more specific at the site plan and building permit stages. The factors are applied to GFAs captured for the development project, primarily at the parcel or parcel grouping level, and sometimes at the building level, provided that there is sufficient information from the development application and the data have been captured into a database. The factors do not vary by geography. However, we would be open to using a factor that is deemed better-suited for areas slated for higher or lower densities, or significantly different market areas. We have wondered if the factors vary inside or outside a regional activity center, for example. For intermediate rounds, we plan to forecast additional absorption in existing buildings using vacant space data and job density factors. This will be primarily for large office buildings in development centers, with an assumed potential for additional employment absorption. The development process screens for development potential at the zoning level and maximum FARs, so these variables are inherently used in the development data we obtain. For future forecast years where a development project has not yet been submitted or is known, we rely on our quantified comprehensive plan uses and densities by TAZ and development center as a guide for maximum employment potential. This ensures that the forecast is in line with the comprehensive plan. While there are many areas in our comprehensive plan where plan densities equal current zoning densities, these are largely outside our major development centers. In these cases, we account for the maximum development potential using zoning FARs and existing development.

TAZ,

Please explain if they are utilized at more than one geographic level.

No. not usually. I think it makes sense to add up the employment by NAICS within each TAZ and then apply to conversion to the TAZ. In cases of future development, I suppose there would be a possibility to applying the conversion at the building and/or parcel level too. We have used a table that breaks-down NAICS codes (translated from the original SIC codes) into the "ORIO" COG land use categories for existing buildings. The table we have sounds like it originated and probably evolved from your memo; we could share this table with you to validate the original source if you would like. In the past, we have used this to take the baseline employment and future employment estimates (if the development proposal is very specific in terms of the future use) and translate that into the COG categories. Future employment from un-built development projects are usually assigned a generic COG category such as Office or Retail, rather than converted into an assumed NAICS code and then into a COG category. We welcome your guidance on when and how to use this conversion chart to maximize accuracy for modeling purposes while minimizing additional steps in the forecasting process.

## PAGE 5

Q6: How does your jurisdiction currently forecast employment at apartment complexes? Please note whether any Employment – Space Conversion factors or SIC - Land Use/Employment ratios are utilized.

We assume one office employee for 40 apartment units in an apartment complex.

Q7: Please add anything about your employment forecasting process that would add to COG staff's understanding of the region's Employment – Space Conversion or SIC-Land Use/Employment Ratio needs.

It might be useful to identify types of development/uses that need updated factors. Office is the one that has been talked about the most, obviously. There has been a lot of debate about this and it has impacts on local land use and transportation planning. Clarity on this is our primary interest.

We also wonder if a study might reveal a variation in office factors for certain kinds of development and/or market area. For example, a low-rise office building might yield fewer employees per square foot than a high-rise office building in an urbanizing area. We would also like clarity on what employment factors to use for nursing homes/assisted living facilities and data centers.

InfoUSA and VEC data provide an employment estimate by building or address, regardless of shift-work (i.e. hospitals, nursing facilities, universities, military bases), part-time employment (i.e. retail), or teleworking (office). Since this data feeds into transportation models, how is the employment we are providing in the COG categories being adjusted for shift-work, part-time employment, and teleworking? With future rounds, is there merit in considering a dataset that estimates peak-hour employment rather than cumulative employment? Or how does the transportation model account for or could account for these variables?

Q8: Mina Wright, from the Office of Planning & Design Quality in the Public Buildings Service at the General Services Administration, will be speaking at the next Cooperative Forecasting and Data Subcommittee meeting on Tuesday, February 10. What questions would you like her to address about the Federal government's role in the region or about its office space needs?

We have heard that the GSA is possibly using a factor of around 75 s.f. per employee for space planning. Does this include common spaces such as break rooms, elevator spaces/shafts, lobbies, and conference rooms? If not, what is the equivalent factor that one could use to estimate office space based on a gross floor area (GFA) of a building? Has teleworking and hoteling influenced these job factors?

Due to the high presence of federal workers in our jurisdiction, could we get an actual employment estimate by address to help establish a baseline? Do you have any information you could share with us about future employment estimates by location within our jurisdiction and region? Maybe COG could get an annual report or list from you to assist in the baseline/forecasting process?



## PAGE 1

Q1: Which jurisdiction do you represent in the Cooperative Forecasting and Data Subcommittee?

**Arlington County** 

#### PAGE 2

# Q2: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your baseline employment calculation?

Our 2010 employment base is created using several datasets:

- InfoUSA
- QCEW/ES202 data
- Federal or Military Master Plans
- Arlington Public Schools employment data
- Job Density derived employment estimates

County GIS staff or COG staff geocode InfoUSA and ES202 data at the address level. We then clean up the addresses and assign them to appropriate census blocks. In the Rosslyn-Ballston and Jefferson Davis corridors, we use our development tracking information, vacancy rates, and job density factors to calculate employment estimates for each census block. This estimated value is then compared to InfoUSA totals, ES202 totals, and any other additional quantitative or qualitative information that we are aware of in that area. Each block is then assigned to utilize one of the above data sources that is most appropriate for that area. InfoUSA and ES202 were generally utilized if their totals did not significantly differ from development estimated totals. Blocks with generally higher estimated totals were typically in Ballston, Rosslyn, and Crystal City and represented blocks with significant DoD or GSA leased space either does not report or underreports in available datasets. Block assignments were checked to ensure that no double counting or headquartering occurred. Military or federal census blocks were assigned employment counts consistent with their latest available installation or master planning documents.

# Q3: If your jurisdiction uses InfoUSA (or similar resource), how does that data factor into your forecasted employment calculations?

#### N/A.

Our forecasted employment calculations rely on the 2010 base and then add development in 5 year intervals. Appropriate development is calculated through our development tracking (permitting and pipeline) database and our forecasting database. The forecasting database calculates areas that are likely to develop within major planning areas and other areas that are subject to small area plans, sector plans, and other approved plans as consistent with the County's General Land Use Plan. This future growth is calculated by combining future development statistics with projected vacancy rates and job density ratios.

#### PAGE 3

Q4: Briefly, how do you use Employment – Space Conversion factors (i.e. square feet of office space per employee) in your forecasts? If relevant, note any differences between forecasting future employment at a.) existing buildings vs. b.) new developments currently in pipeline vs. c.) for parcels that are not currently slated for development or redevelopment Include how zoning, floor area ratios, gross leasable area vs. gross building area, vacancy rates and land use type are considered along the process Note upon which geographic level (employer, building, parcel, block, TAZ or jurisdiction) the factors are applied. Please explain if they are utilized at more than one geographic level.

As mentioned in question 2, employment – space conversion factors are utilized in specific census blocks to estimate 2010 base employment.

They are also utilized throughout the forecast years to convert projected development to numbers of jobs. All job factors are county-wide. All job factors are the same in the employment base and the forecasted years, with the exception of the office job factor. The 2010 base utilizes 250 SF of occupied space per employee and the forecast years (2015-2050) utilize 200 SF of occupied space per employee. This is to show that new office construction generally contains more efficient floorplates and to reflect the trend of firms using less space for the same or greater number of employees.

Retail vacancy rates are consistent throughout the county. Office vacancy rates, however, vary by subarea. These subareas are Rosslyn, Courthouse, Clarendon, Virginia Square, Ballston, Shirlington, Columbia Pike, Pentagon City, Crystal City, and other areas. These rates are obtained from CoStar. They are then modified to correct any inaccuracies and altered to shown known BRAC (and other) private leases that are set to expire through major federal actions. The vacancy rates are then slowly adjusted to their 20 year averages by 2040 (or earlier as applicable). As they have approved redevelopment plans, Crystal City and Rosslyn are given a higher vacancy rate in later forecast years to reflect vacant buildings that go offline due to age or redevelopment.

## PAGE 4

Q5: Do you use the 1985 COG memorandum's SIC -Land Use/Employment Ratios at the employer, building, parcel, block, TAZ or jurisdiction levels? Employer, Building,

Please explain if they are utilized at more than one geographic level.

We use the 1985 SIC ratios when we build the 2010 employement base. For census blocks where ES202 or InfoUSA were utilized to calculate employment, the reported SIC codes (or NAICS converted to SIC) were used to convert the SIC employment counts into office, retail, industrial, and other. We utilized a SIC conversion from Fairfax county for federal civilian, civilian contractor, and armed forces employment conversion on federal blocks. For blocks where we utilized development data to derive an employment estimate, we directly converted into the above four categories. Since the employment forecast is development driven, it utilizes the same method.

Q6: How does your jurisdiction currently forecast employment at apartment complexes? Please note whether any Employment – Space Conversion factors or SIC - Land Use/Employment ratios are utilized.

We do not forecast employment at apartment complexes unless they have a retail component as defined in our development tracking database. The retail component would utilize the retail employment – space conversion factor.

Q7: Please add anything about your employment forecasting process that would add to COG staff's understanding of the region's Employment – Space Conversion or SIC-Land Use/Employment Ratio needs.

SIC conversions for military (federal civilian, civilian contractor, and armed forces) would be useful, as would generally updated conversion ratios in the NAICS system. We have considered lowering the employment space conversion ratios for office space in the later years of the forecast, but it is difficult to justify with such limited data sources. Any regional or national data that can shed light on that trend would be useful. From the forecasting perspective, it is difficult to estimate if smaller office spaces with higher amounts of employees is a 5 year trend or a 30 year trend.

Q8: Mina Wright, from the Office of Planning & Design Quality in the Public Buildings Service at the General Services Administration, will be speaking at the next Cooperative Forecasting and Data Subcommittee meeting on Tuesday, February 10. What questions would you like her to address about the Federal government's role in the region or about its office space needs?

What is the current trend or conversion ratio for GSA leased office space?