GEORGE WASHINGTON
REGIONAL COMMISSION

George Washington Regional Commission
406 Princess Anne Street
Fredericksburg, Virginia 22401
(540) 373-2890
Fax (540) 899-4808
www.gwregion.org

Dr. Linda Struyk Millsaps
Executive Director

March 12, 2019

Mr. John Evans, Principal
Cambridge Sytematics, Inc.
4800 Hampden Lane, Suite 800
Bethesda, MD 20184

RE: Notice-to-Proceed for Task Order: Fiscal Year 2020 Unified Planning Work Program (UPWP) Support

Dear Mr. Evans:

Attached, please find the approved Task Order for FY2020 UPWP Support. This Task Order will provide support to FAMPO through the process of development, review and adoption of the FY2020 UPWP consistent with MAP-21 and FAST Act requirements and guidance and will provide expert advice, best practice research and ongoing staff support to address questions and comments from planning partners and stakeholders. The total contract amount is not to exceed $28,820. This letter will also serve as your Notice to Proceed.

Thanks for your assistance in this matter.

Sincerely,

Dr. Linda Struyk Millsaps
Executive Director

Attachment

Cc: Contract File
FAMPO Policy Committee

CAMBRIDGE SYSTEMATICS

Think Forward

Memorandum

TO: Paul Agnello, FAMPO

FROM: David Jackson, Rich Denbow, Jay Evans, CS

DATE: March 12, 2019

RE: Task Order – FY 2020 UPWP Support

Objectives

The objectives of this task order include the following:

- Support FAMPO through the process of development, review, and adoption of the FY 2020 Unified Planning Work Program (UPWP) consistent with MAP-21 and FAST Act requirements and guidance; and
- Throughout the development effort, provide expert advice, best practice research, and ongoing staff support to address questions and comments from planning partners and stakeholders.

This work will build on a prior CS team task order providing MAP-21/FAST Act performance management support through target setting and metropolitan planning requirement support for the 2045 CLRP and 2045 CLRP Update.

Scope of Work

Background

MAP-21 made significant changes to the scope of the statewide and metropolitan planning process, notably the introduction of "a performance-driven, outcome-based approach to planning." This entails modifying statewide and metropolitan transportation planning processes to "provide for the establishment and use of a performance-based approach to transportation decision-making to support the national goals described in 23 U.S.C. Section 150(b) and the general purposes [for public transportation] described in 49 U.S.C. 5301." Associated with these changes are new requirements for Metropolitan Planning Organizations (MPOs) within UPWPs to clearly document how metropolitan transportation planning activities using funds provided under title 23 U.S.C. and title 49 U.S.C. Chapter 53 support the overall requirements detailed in both MAP-21 and the FAST Act.

FAMPO's UPWP supports ongoing work in the areas of short-range and long-range transportation planning, land use planning, congestion management, public participation, corridor planning and

3 Bethesda Metro Center, Suite 1200
Bethesda, MD 20814
tel 301-347-9100 www.camsys.com fax 301-347-9101

other special projects. Prior to spending funds on transportation planning activities, all MPOs are required to annually adopt what is called a Unified Planning Work Program (UPWP). The purpose of the UPWP is to identify:

- The transportation planning work activities to be carried out during the fiscal year;
- The end products resulting from that work;
- The funding sources for each activity; and
- The agencies and/or organizations responsible for ensuring that the work is performed, and products delivered.

Work Activities

CS support of FAMPO to develop the FY 2020 UPWP will ensure consistency with the applicable details noted in the current FAMPO "3C" Planning Agreement with the Commonwealth, and all relevant requirements and guidance consistent with Federal code applicable to MAP-21 and the FAST Act.

The task will initiate with a detailed review and research of the Draft FY 2019 amended UPWP and associated public and stakeholder comments. CS will work with FAMPO to determine the best approach to address these comments within the FY 2020 UPWP. The review will also include an assessment of the UPWPs consistency in organization and reference to MAP-21/FAST Act requirements for applicable metropolitan planning activities. This includes performance based planning and programming, freight planning, air quality conformity and interagency consultation, and the incorporation of new planning factors, as well as any initial applicable findings or corrective actions from the scheduled April 2019 FHWA certification review. This activity specifically will address stakeholder comments received by FAMPO, specifically including VDOT comments on the Draft FY 2019 UPWP amendment, including:

- Demonstrating that all NHS, STP, or MG funds used for eligible planning and RD&T purposes are identified separately from SPR or PL funds in the UPWP consistent with 23 CFR 420.119,
- Highlight tasks or activities within the UPWP that are relevant to supporting the National Highway Freight Program and build from recent statewide freight planning activities required under the FAST Act, and
- Highlight within each task how it supports specific MAP-21 planning factors.

The results of this review will include recommendations to FAMPO staff on how to fully address applicable requirements within the FY 2020 UPWP.

To support the UPWP development effort, CS will also conduct a review and research of peer Virginia MPO UPWPs and best practices from other MPOs outside of Virginia that are similar to FAMPO (similar in region population, growth). As part of this review, CS will conduct a brief peer assessment and review of comparable MPO staffing needs and organizational structure. This activity will include a comparison of FAMPO staff size and resources with peer MPOs (peer MPOs will include no more than five Transportation Management Association MPOs of similar size within

Virginia and neighboring states). Washington D.C. and Roanoke will be two of the five MPOs included in the review. The review will also compare UPWP budgets, providing breakdown of funds by category (Federal PL, FTA planning, STP, other, etc.) and a general overview on consultant use and types of consultant activity based on available national figures or research. CS will develop a brief memorandum summarizing the findings of this review as supporting documentation to the FY 2020 UPWP effort.

As directed, CS will support FAMPO in developing UPWP task narratives to support UPWP budget and task documentation as specified in Federal code and based on the best practice insights gathered by the peer MPO assessment. CS will regularly collaborate with FAMPO to complete a Draft FY 2020 UPWP by May 3, 2019 for FAMPO Committee review in May. Following Committee review, CS will continue to support FAMPO through public comment review during May, narrative and documentation revisions, and FY 2020 UPWP finalization, including Committee presentations to seek UPWP adoption during scheduled June meetings. Following adoption, CS will assist FAMPO in submitting all requested information to State within 21 days of FAMPO Policy Committee action.

Deliverables

- Complete Draft FY 2020 UPWP document by May 3, 2019.
- Respond to and address public and stakeholder comments throughout May and June and incorporate into the Final FY 2020 UPWP.
- Final FY 2020 UPWP document and associated presentations for Technical and Policy Committee discussion during scheduled May or June meetings.
- Summary memorandum highlighting the findings of the MPO peer UPWP assessment.
- CS will conduct regular bi-weekly conference calls (as necessary) with FAMPO staff to discuss progress, next steps, and deliverables status.
- In-person attendance and presentation at up to three meeting, including two meetings to adopt the FY 2020 UPWP as directed by FAMPO staff, including presentations to FAMPO Committees, and one potential review meeting with VDOT staff to address comments.

Staffing

Rich Denbow will serve as the task order manager. Jay Evans will serve as the Principal responsible for the work, with David Jackson serving as a senior advisor. Rich and David will be supported by experienced staff to deliver elements of the scope of work and attend meetings as requested by FAMPO.

Schedule

Following Notice to Proceed, CS will develop a detailed schedule and associated work plan to help ensure that the UPWP development process maintains progress toward an adopted FY 2020 UPWP by June 2019. The detailed schedule is presented in Figure 1.

Figure 1. FY 2020 UPWP Development Schedule

Task Order Activity	March	April	May	June
Draft 2019 UPWP Update Review				
Peer MPO Review				
UPWP Narrative Development and Refinement				
UPWP Review and Adoption				

Price Proposal

FIRM	Labor Hours	Labor Cost	Travel Cost	BUDGET
Cambridge Systematics, Inc.				
Task 1	146	$27,925	$895	$28,820
TOTAL:	**146**	**$27,925**	**$895**	**$28,820**

CAMBRIDGE SYSTEMATICS

			Subtasks									
			Review and Research of Draft Amended FY-19 UPWP and associated Stakeholder Comments regarding Federal Requirements		Peer Review of 5 MPOS: Washington, Roanoke, and 3 other similar TMA MPOs		UPWP Narratives and Completion		FY2020 UPWP Support - Total		Work Percentag	
Name	Labor Category	Rate	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Costs
Direct Labor												
Jay Evans	Technical Expert	$ 330.53	*1*	*$ 331*	*1*	*$ 331*	*3*	*$ 992*	5	$ 1,653	3%	6%
David Jackson	Associate II	$ 211.43	*6*	*$ 1,269*	*2*	*$ 423*	*12*	*$ 2,537*	20	$ 4,229	14%	15%
Rich Denbow	Associate II	$ 211.43	*12*	*$ 2,537*	*11*	*$ 2,326*	*36*	*$ 7,611*	59	$ 12,474	40%	43%
Suseel Indrakanti	Analyst III											
Laura Richards	Analyst III	$ 183.44	*10*	*$ 1,834*	*10*	*$ 1,834*	*10*	*$ 1,834*	30	$ 5,503	21%	19%
Alexandria Washington	Analyst I	$ 127.06	*16*	*$ 2,033*	*16*	*$ 2,033*		*$ -*	32	$ 4,066	22%	14%
Direct Labor Subtotal			***45***	***$ 8,004***	***40***	***$ 6,946***	***61***	***$ 12,975***	146	$ 27,925	100%	97%
Work Percentage			***31%***	***29%***	***27%***	***25%***	***42%***	***46%***				
Direct Expenses												
Travel: 2 overnight trips from Raleigh, NC (470 miles + meals + lodging), 1 day trip from Bethesda, MD (124 miles + meal)										$ 895		
Total Direct Expenses										$ 895		3%
TOTAL COST PLUS FEE									146	$ 28,820		100%

GEORGE WASHINGTON
REGIONAL COMMISSION

George Washington Regional Commission
406 Princess Anne Street
Fredericksburg, Virginia 22401
(540) 373-2890
Fax (540) 899-4808
www.gwregion.org

Dr. Linda Struyk Millsaps
Executive Director

March 12, 2019

Mr. Craig Eddy, Vice President
Michael Baker International
3200 Rockbridge St., Suite 104
Richmond, Virginia 23230

RE: Notice-to-Proceed for Task Order: Detailed Traffic Impact Analysis 1500 Gateway Boulevard (Hylton Property)

Dear Mr. Eddy:

Attached, please find the approved Scope and Budget for consultant services to conduct a detailed Traffic Impact Analysis (TIA) for Gateway Boulevard Extended to provide additional detail beyond the analysis done in the previous Bowman TIA study for a total contract amount not to exceed $62,500. This letter will also serve as your Notice to Proceed.

Thanks for your assistance in this matter.

Sincerely,

Linda S Millsaps

Dr. Linda Struyk Millsaps
Executive Director

Attachment

Cc: Contract File
FAMPO Policy Committee

Michael Baker
INTERNATIONAL

TASK ORDER REQUEST
Detailed Traffic Impact Analysis
1500 Gateway Boulevard (Hylton Property)

Overview

It has been requested that Michael Baker International (Baker) conduct a detailed Traffic Impact Analysis for the Hylton Property development which will be located along the proposed Gateway Boulevard Extension roadway project. A limited Traffic Impact Study was conducted in March 2018. This task order will expand the study area and conduct the analysis using a more detail-oriented traffic simulation modeling software (VISSIM). Below are the tasks necessary to accomplish the above activity.

Task 1 – Project Management and Coordination

This task consists of time required to administer the project addressing contract matters, internal project coordination, agency coordination (GWRC/FAMPO, the City of Fredericksburg, and VDOT), supervision and general quality control, and project management responsibilities consisting of project organization and scheduling.

Task 2 – Data Collection

There is not expected to be any field data collection for this Traffic Impact Analysis. This task will include the research, compiling, and updating of traffic data in existing documents.

Task 3 – Existing Conditions Operational Analysis

Baker will conduct AM and PM operational analyses for the existing conditions using the traffic volumes developed in Task 2. The study area will include the intersections and I-95 ramp junctions on Route 3, the Gateway Boulevard extension, and the intersection of the Gateway Boulevard extension and Cowan Boulevard. The analysis will be conducted using the VISSIM software to ensure that the simulation accurately reflects the traffic conditions, particularly along Route 3 and the I-95 ramp junctions. The VISSIM model developed for the I-95 study will be used, however it is expected that this model will need to be modified to reflect current conditions. Delay, Level of Service, and queue lengths will be reported for the following locations:

- The intersection of Route 3 with Gateway Boulevard
- The intersection of Route 3 with Mahone Street/Altoona Drive
- The Route 3 eastbound junction with the I-95 southbound loop ramp
- The Route 3 eastbound triple-left turns to northbound I-95
- The Route 3 eastbound junction with the I-95 northbound off-ramp
- The Route 3 westbound junction with the on-ramp to I-95 northbound
- The Route 3 westbound junction with the I-95 northbound loop ramp
- The Route 3 westbound junction with the I-95 southbound loop ramp

3200 Rockbridge St., Suite 104 | Richmond, VA 23230
Office: 804.282.1821 | Fax: 804.285.8530

Task 4 – 2040 Background Condition Forecast Volumes

Baker will forecast future 2040 AM and PM peak hour traffic volumes for the background condition. This condition will include the proposed Gateway Extension but will not include the proposed development. This is necessary because the construction of the Gateway Boulevard extension will have regional implications on traffic patterns due to the proximity to the I-95/Route 3 interchange.

The FAMPO travel demand model will be used to determine the changes in travel patterns due to the construction of the Gateway Boulevard Extension. Baker will submit the methodology and results of this task for review by the stakeholder agencies.

Task 5 – 2040 Background Condition Operational Analysis

Baker will update the existing conditions VISSIM model to include the Gateway Boulevard extension and the new intersection with Cowan Boulevard. The model will also be updated with the 2040 AM and PM forecast volumes developed in Task 4. Delay, Level of Service, and queue lengths will be reported for the locations presented in Task 3 as well as the intersection of the Gateway Boulevard extension and Cowan Boulevard.

Task 6 – Trip Generation and Trip Distribution

The trip generation volumes will be developed using the latest ITE Trip Generation Manual. Any volume reduction techniques applied to the trip generation volumes will be documented and included in the report. Trip Generation will be conducted for two different land use scenarios; the proposed development shown in the March 2018 Limited Traffic Impact Study and an additional scenario with less intense development. Also, as part of this task, Baker will provide a comparison (for the year 2025) of site trip generation, background growth, forecast volumes, and other traffic volume metrics presented in the March 2018 TIA to the same metrics calculated for this updated TIA task order. The results will be submitted to the review agencies as a memorandum that includes comparison tables and a discussion of the results.

Task 7 – 2040 Build Conditions - Operational Analysis and Recommendations

There will be four total analysis scenarios for the 2040 Build conditions:
Land Use Scenario 1 – 2040 AM
Land Use Scenario 1 – 2040 PM
Land Use Scenario 2 – 2040 AM
Land Use Scenario 2 – 2040 PM

Land Use Scenario 1 (from the March 2018 TIS):

Baker will update the AM and PM 2040 Background condition VISSIM models to include the trip generation volumes for the first land use scenario (from the March 2018 TIS) and the two access points to the proposed development on the Gateway Boulevard Extension.

Recommendations for roadway improvements will be tested and analyzed for this first land use scenario to determine any reduction in land use densities and/or trips generated that is needed to decrease congestion on the surrounding roadways to an acceptable level. The results will be submitted to GWRC for review and to determine the land use to be used in the second analysis scenario.

Land Use Scenario 2:
GWRC will provide a second land use scenario to Baker based on the analysis results from the first land use scenario. Baker will develop trip generation (as part of Task 6) for the second land use scenario and update the AM and PM VISSIM models for the operational analysis.

It is anticipated that recommendations will not be limited to those proposed in the 2018 Limited Traffic Impact Study and may include innovative intersection configurations.

Task 8 – Meetings

It is expected that two WebEx meetings will be conducted with agency stakeholders to address methodologies, results, or any comments/concerns. This task includes preparation and participation for the meetings. This task does not include any formal meetings with the City Council.

Task 9 – Reporting

Baker will package the report in accordance with the VDOT Traffic Impact Analysis Regulations. The report will include conceptual sketches of the recommended improvements. Electronic copies of the report will be submitted to the stakeholder agencies for review. Two hard copies of the final document can be submitted upon request.

Schedule

It is expected that a draft report will be delivered within 18 weeks of Notice to Proceed. A final report will be delivered within two weeks of receiving comments on the draft submission.

	Task	2019					
		March	April	May	June	July	Aug.
1	Project Management and Coordination						
2	Data Collection						
3	Existing Conditions Operational Analysis						
4	2040 Background Condition Forecast Volumes						
5	2040 Background Condition Operational Analysis						
6	Trip Generation and Trip Distribution						
7	2040 Build Conditions - Operational Analysis and Recommendations						
8	Meetings						
9	Submit Draft Report						
	Submit Final Report (Anticipated)						

Cost

The total labor cost is $62,484 which is derived from 498 hours at fully burdened rates. Direct expenses are expected to be $16 for printing. Therefore, the total project cost will be $62,500.

FAMPO
Fredericksburg Area Metropolitan Planning Organization

Timothy McLaughlin
Chair

Paul Agnello
FAMPO Administrator

FAMPO RESOLUTION 19-25

APPROVING SCOPE AND BUDGET FOR CONSULTANT SERVICES FOR GATEWAY BOULEVARD EXTENDED DETAILED TRAFFIC IMPACT ANALYSIS STUDY TASK ORDER

WHEREAS, the City of Fredericksburg has requested that FAMPO complete a new traffic impact analysis (TIA) study for Gateway Boulevard Extended to provide additional detail beyond the analysis done in the previous Bowman TIA study; and

WHEREAS, the City has requested that $62,500 in FY-2019 RSTP funding for Gateway Boulevard Extended be used to pay for the cost of this TIA study; and

WHEREAS, FAMPO approved the allocation of $62,500 in FY-2019 RSTP funding for use in this study in Resolution 19-23 approved on 1/28/2019; and

WHEREAS, FAMPO staff have consulted with the City of Fredericksburg and VDOT Fredericksburg District to receive input on the study scope and effort and worked with its consultant Michael Baker International to develop a scope and budget for consultant services in the amount of $62,500 to complete the new TIA study; and

NOW, THEREFORE, BE IT RESOLVED that the Fredericksburg Area Metropolitan Planning Organization hereby approves the use of FAMPO on-call consultants in the amount of $62,500 to complete the Gateway Boulevard Extended TIA Study.

Adopted by the Policy Committee at its meeting on February 25, 2019.

Timothy McLaughlin, Chair
Fredericksburg Area Metropolitan Planning Organization
Policy Committee

PROJECT TOTALS

Detailed Traffic Impact Analysis for 1500 Gateway Boulevard (Hylton Property)

LABOR

Task No.	Task	Hours	Total Cost	Work Percentage by Hours
1	Project Management and Coordination	24	$ 4,292	6.87%
2	Data Collection	10	$ 1,266	2.03%
3	Existing Conditions Operational Analysis	104	$ 11,912	19.06%
4	2040 Background Condition Forecast Volumes	60	$ 7,732	12.37%
5	2040 Background Condition Operational Analysis	98	$ 11,485	18.38%
6	Trip Generation and Trip Distribution	16	$ 2,105	3.37%
7	2040 Build Conditions - Operational Analysis and Recommendations	110	$ 13,297	21.28%
8	Meetings	14	$ 2,026	3.24%
9	Reporting	62	$ 8,369	13.39%
	TOTALS	**498**	**$ 62,484**	**100.00%**

ODC's

Task No.	Task	Reproduction	TOTAL
1-9	All Tasks	$16.00	$16.00
	TOTALS	$16.00	$16.00

GRAND TOTALS

Labor	$62,484
ODC's	$16
Total	$62,500

Detailed Traffic Impact Analysis for 1500 Gateway Boulevard (Hylton Property)					
	MICHAEL BAKER INTERNATIONAL - Direct Costs				
		Reproduction	Travel	Communication/Postage	
Task No.	**Task**				**TOTAL**
1	Project Management and Coordination				$0.00
2	Data Collection				$0.00
3	Existing Conditions Operational Analysis				$0.00
4	2040 Background Condition Forecast Volumes				$0.00
5	2040 Background Condition Operational Analysis				$0.00
6	Trip Generation and Trip Distribution				$0.00
7	2040 Build Conditions - Operational Analysis and Recommendations				$0.00
8	Meetings				$0.00
9	Reporting	$16.00			$16.00
	TOTALS	$16.00	$0.00	$0.00	$16.00

Economics

The Most Expensive Commutes in America Aren't in NYC or San Francisco

By Shelly Hagan and Wei Lu
February 28, 2019, 7:00 AM EST

The most expensive commutes in the U.S. probably aren't where you would imagine. The commuters who face the highest costs aren't coming from the suburbs of New York City or San Francisco. These commuters live within 65 miles of Washington.

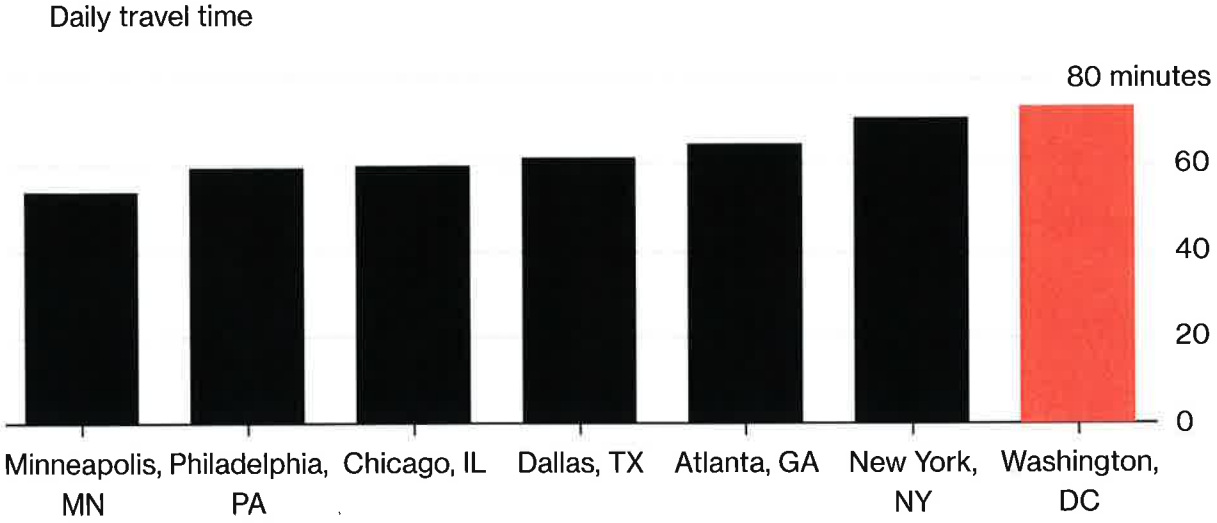
Workers from Charles County, in southern Maryland, spent 388 hours -- or just under two and a half weeks -- on average, traveling to and from work in 2017, according to Bloomberg analysis of U.S. Census data.

In this article

AMZN
AMAZON.COM INC
1,645.63 USD ▼ -23.32 -1.40%

How Long Is Your Daily Commute?

Among metro areas comprised of a minimum of ten large counties, residents in D.C. region spent the most time commuting to work



Source: Bloomberg analysis of U.S. Census data
Note: County average based; Only included counties with 60,000+ population

Residents in Fauquier County and Stafford County in Virginia, more than 35 miles (56 kilometers) from Washington, face similar commuting costs.

In this article

AMZN
AMAZON.COM INC
1,645.63 USD ▼ -23.32 -1.40%

Bloomberg calculated a county resident's opportunity cost by converting hours spent commuting into a dollar amount based on the average annual income of a full-time worker. The index also factored in the percentage of workers who commute before 6 a.m. under the assumption that leaving that early is undesirable for most and warrants a higher opportunity cost.

While the residents of these counties may decide to commute based on a variety of factors, they typically have higher incomes than the average for the region, according to Brad Hansen, an economics professor at University of Mary Washington in Fredericksburg, Va., about an hour's drive from Washington.

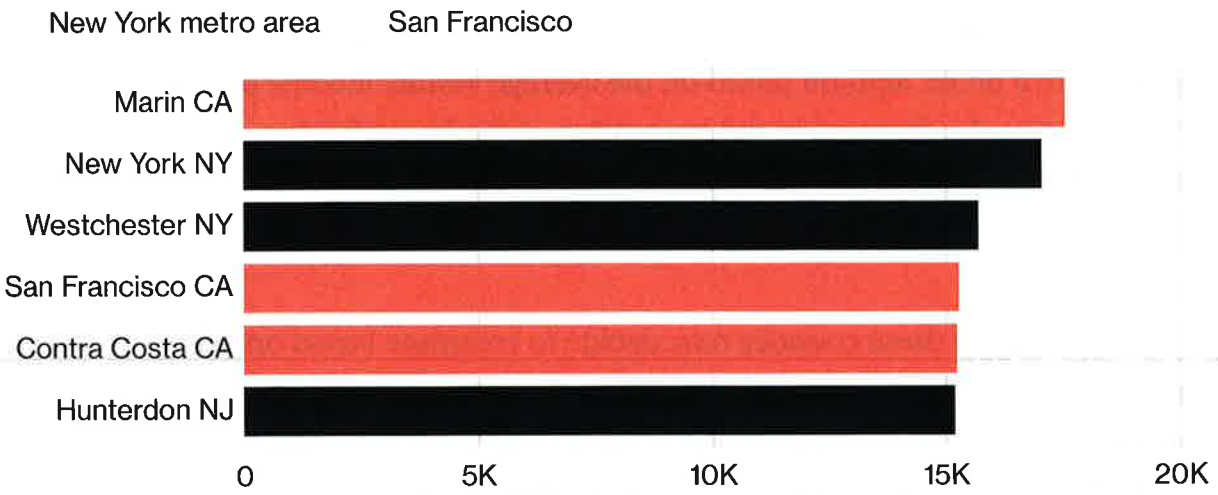
"They find the jobs in D.C. and Northern Virginia more attractive, largely because of higher income, but they find living in places like Stafford, Fredericksburg and Spotsylvania more attractive because of lower housing prices or they like living in a less urban area," Hansen wrote in an email.

Time vs. Money

How do residents determine whether the commute is worth it? They must balance the trade- off between high rents and short commutes against low rents and long commutes, according to Ferdinando Monte, an assistant professor of economics at Georgetown University.

If Time Were Money
Time spent on commuting amounted to an equivalent of $15,000 or more a year in these six counties; Long journey to work and high earnings power were to blame

In this article



Source: Bloomberg analysis of U.S. Census data
Note: Cost equivalent approximated by converting average commuting hours into dollar amount, based on average full-time worker's income

"You would like to be close to a place that has high wages or high amenities but you don't want to pay the high rents," Monte said. "Rather than paying for higher rent, you can pay that in commuting time."

Apparently, many workers taking residence in the satellite neighborhoods of San Francisco and the New York-New Jersey metro area also prefer the commute over higher rents, according to the index.

Sprawling Cities

One might ask how the counties in Virginia and Maryland ranked higher than counties outside New York City and San Francisco. One reason may be simple geography -- how easy it is for a city to sprawl out or cover a larger area, according to Monte.

For example, San Francisco is hilly and surrounded by water on three sides, which impedes sprawl, he said. The Washington area is less inhibited by such factors. Also,

In this article

AMZN
AMAZON.COM INC
1,645.63 USD ▼ -23.32 -1.40%

Congress enacted a law more than 100 years ago that limits the height of buildings within the city. This has kept the D.C. skyline low; urban sprawl has ensued.

Arlington County, Virginia, where Amazon proposed to build its expansive new headquarters, scored the lowest among the 14 largest counties in the greater Washington region. From home to work, local residents spent just shy of 30 minutes commuting -- the equivalent of 12 percent of $106,670, the average pay for a full-time worker in the county.

In 2014, the Metrorail system added four new stations in Virginia. Construction is underway for an additional six stations on an 11-mile stretch of track that will include a transfer from the Washington Dulles International Airport to downtown Washington.

The index shows some portion of Americans choose lengthy commutes but there's an increasing number of them who work from home. Technological advancements and the rise of the "gig economy" have enabled jobs to be performed anywhere with Internet access.

To access the full data set click HERE

Methodology

The index scored 800+ counties for the highest cost of commuting based on three metrics: the cost of commuting in equivalent dollar amount, the percentage of income this matches, and the percentage of the workforce that leaves before 6:00 a.m. The three metrics are weighted at 70 percent, 20 percent and 10 percent, respectively.

The absolute cost of commuting was calculated by converting total commuter hours into a dollar amount based on the average annual income of a full-time employee in the region. The index does not include ancillary costs for transportation and parking.

In this article

AMZN
AMAZON.COM INC
1,645.63 USD ▼ -23.32 -1.40%

To access Bloomberg's Economic Cost of Commuting full data set, click HERE .
Below are the 20 counties with the highest commuting cost:

Economic Cost of Commuting

2019 Rank	County	Metro	Opportunity Cost Score	Money Equivalent	As % Income	Total Hours Commuting	Workforce Commuting pre-6AM	Average Earnings
1	Charles MD	Washington, DC	99.3	$14,612	19.4%	388	27.8%	$75,254
2	Fauquier VA	Washington, DC	97.4	$13,813	17.6%	352	20.6%	$78,555
3	Stafford VA	Washington, DC	97.3	$12,400	16.5%	330	28.0%	$75,154
4	Contra Costa CA	San Francisco, CA	97.0	$15,269	16.3%	326	17.7%	$93,724
5	Calvert MD	Washington, DC	96.9	$11,842	16.6%	332	28.4%	$71,410
6	Prince William VA	Washington, DC	96.8	$12,415	16.9%	338	22.0%	$73,391
7	Spotsylvania VA	Washington, DC	96.1	$11,192	16.3%	326	25.6%	$68,698
8	Frederick MD	Washington, DC	95.2	$11,647	15.2%	304	19.5%	$76,580
9	Carroll MD	Baltimore, MD	94.3	$10,976	14.6%	293	20.2%	$75,052
10	Sussex NJ	New York, NY	93.5	$11,585	15.5%	310	16.4%	$74,745
11	Richmond NY	New York, NY	92.2	$13,831	19.1%	382	11.9%	$72,475
12	Montgomery TX	Houston, TX	92.1	$10,961	13.7%	274	17.2%	$79,959
13	Plymouth MA	Boston, MA	92.0	$11,108	14.2%	283	15.9%	$78,407
14	Loudoun VA	Washington, DC	91.3	$13,934	14.0%	281	11.9%	$99,236
15	Prince Georges MD	Washington, DC	91.2	$9,874	15.5%	309	17.4%	$63,873
15	Warren NJ	Allentown, PA	91.2	$9,849	14.7%	293	17.9%	$67,154
17	Matanuska Susitna AK	Anchorage, AK	91.1	$9,618	14.6%	293	19.0%	$65,767
18	Hunterdon NJ	New York, NY	90.8	$15,204	14.6%	293	9.9%	$103,959
18	Snohomish WA	Seattle, WA	90.8	$9,595	13.5%	269	22.9%	$71,292
20	Monmouth NJ	New York, NY	90.4	$14,186	14.3%	287	10.1%	$98,970
20	Solano CA	Vallejo, CA	90.4	$9,319	13.7%	275	23.4%	$67,778

Source: Bloomberg analysis of U.S. Census data

Notes: Opportunity cost of commuting were approximated by converting total commuting hours -- average annual time an employed person spent on his/her journey to work and back to home -- into dollar amount, based on the average income earned by a person age 16+ who was employed full-time and worked year-round. Every FTYR worker was assumed to have worked 8 hours per week for 50 weeks for an equivalent of 2,000 hours per year. Included counties with at least 65,000 population as of the 2017 Census; 926 of the 3,000+ total counties in the U.S. met the criteria to be ranked

Bloomberg

In this article

AMZN
AMAZON.COM INC
1,645.63 USD ▼ -23.32 -1.40%