

City of Everett
Districting Commission Special Meeting
Monday – Nov 4, 2019

Location: Everett Council Chambers Time: 6:00 p.m.

Everett Council Chambers – 3002 Wetmore Ave – Everett WA

AGENDA

- District Commission Roll Call
- Approve minutes
- Comments from the Chair
- Staff Comments

Item 1: Districting- master discussion and interviews (1hour)

Item 2: Discussion Items. (15min)

Districing Masters Role and Responsibilities

The role of the Districing Master will be to use Census data, Geographic Information System (GIS) files (such as shape files), and software to create proposed districing plans that contain five districts. The Districing Master will be responsible for:

Obtaining current Census data and drawing district boundaries to ensure that each district contains approximately the same total population within a +/- 5% threshold of the mean.

Obtaining shape files of the city limits and ensuring that the boundaries are compact and contiguous.

Avoiding splitting (or "cracking") concentrated populations of racial or ethnic minorities into more than one district.

Drawing district boundaries that follow existing voting precinct boundaries and obtaining shape files from Snohomish County that contain the city's voting precincts.

The Districing Commission will conduct public hearings, and provide the Districing Master with the following information:

The location of existing recognized natural boundaries.

The location of existing communities of related and mutual interest.

Whether the Districing Master should attempt to draw districts to minimize the instances of more than one incumbent residing in the same district, or whether the Districing Master is free to ignore incumbency.

The Districing Master will incorporate; location of existing communities of related and mutual interest into proposed maps, location of existing recognized natural boundaries and information gathered from public/community hearings. The Districing Master may also consult with the city's special outside legal counsel on applicable legal requirements.

City of Everett



2930 Wetmore Ave., Ste. 10-A
Everett, WA 98201



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everettwa.gov

Everett Districting Commission, District Master Interview Questions

Nov 4th and 18th 2019

1. Please introduce yourself and provide a brief overview of your background and familiarity with Everett.
2. Have you ever worked for a districting commission or like body? Please explain. If not, what background do you have that might be similar?
3. Please explain how you view the role of district master.
4. How would you keep open communication and the districting commission informed?
5. What is the biggest problem that you would expect to face when creating a district map?
6. What familiarity do you have working with shape files?
7. How do you plan to understand and ensure communities of mutual interest are not separated? What does the term "communities of mutual interest" mean to you?
8. There are two key tactics used in gerrymandering; Cracking and Packing. How would you prevent this from happening?
9. How would you suggest presenting the Districting Map to the people of our city?
10. What assistance do you expect or need from City staff to support your work?
11. Are you willing to attend community meetings once we have a draft map(s) ready for the community to provide input on?



City of Everett Districting Commission

Meeting Date and Time: October 14, 2019 6:00 PM

District Commission Roll Call

In Attendance: Simone Tarver, Chris Geray, Ethel McNeal, Benjamin Young, James Langus, John Monroe, Mary Fosse, Kari Quaas, Julius Wilson

Not in Attendance:

City Staff in Attendance: Nichole Webber, Flora Diaz, Administration Intern Jamie Smith

Approve minutes: Simone Tarver made the motion, John Monroe and Ethel McNeal seconded– **motion passes 9:0**

Chair Comments: Simone Tarver – agenda has been updated to allow more time to discuss a District Master

Vice Chair Comments: Chris Geray – None

Staff Comments: Introduce legal representative Flora and address letter from Everett Districts Now

- Please include EDN and the chairs of all Everett neighborhoods on any distribution list for official announcements and communications related to districting to increase outreach and public engagement.
 - *There is no distribution list, all material will be or is online.*
- Please provide clarity for the process for selecting “alternates” to the districting commission should a vacancy occur.
 - *If there is an alternate needed, it will go back to council – geographic diversity will be a selection factor.*
- Please consider rotating the location of the meetings in a setting that still allows recording but is hosted in other parts of the city. (For example – the south precinct common room, Evergreen Middle School or a location in Delta.)
 - *Because we stream these meeting on the Everett Chanel, that would be very difficult to do.*
- Please consider accepting public comments at the beginning of the meetings.
 - *This will be considered at a future meeting, after the Master is selected.*

Item 1: Staff Presentation– Nichole Webber

- Background – independent commission
- Process – districting plan

- Requirements -
- Definitions -
- Districting Master – requirements

Item 2: Districting Master

Review of district master procurement process and possible candidates: The Everett Purchasing Department is currently searching for candidates and will continue to look until the 24th of October. The group is open to having the Everett Planning Department participate in supporting the master and providing input through the map drawing process.

Geographic and “number” conversation: What each candidate can provide and what can the city do? The City of Everett is currently requesting information from all the potential candidates and will have a better idea once they receive written proposals and have interviews with the commission.

Prior to our next meeting: (the Friday before) city staff will provide the appropriate material to the commission to ensure they can prepare.

Next meeting dates: Nov 4th and 18th motion made by John Monroe, seconded by Kari Quaas **-motion passes 9:0**

Appointment conversation/clarification: The commission can appoint a master and or another expert, so long as it's reasonable and aligns with the council approved budget.

Community engagement conversation before the map is drawn: Waiting for a map before getting community input, understanding why the map was drawn that way, and giving the commission a starting place.

Understanding potential costs of a master: volunteer applicant to high cost

Nov 4th and 18th: will be used to interview and discuss applicants – all candidates will be invited to attend the 4th.

The commission elected to standardize questions and send them to the candidates prior to the Nov 4th meeting.

Each commissioner will contribute a written question to staff on or before Oct 24th – legal and planning will review.

Discussion Closed

Item 3: Open Discussion

Public Comment – ground rules. Motion by Simone Tarver to hold on accepting public comment until after the master is selected at that point we can bring this conversation backup and decide when we will accept comment and perimeters around it. Seconded by John Monroe **motion passes 9:0**

December council meeting update – Simone Tarver to update DATE TBA

December meeting conversation – holding Dec 2nd as a potential meeting date

Materials Provided:

- Agenda
- Minutes from 9.30.19
- Everett Districts Now letter
- Staff Presentation
- Master inquires

Next Meeting: 11/04/19 at 6:00 PM

Adjourned: 7:20 PM

DRAFT

TJALLING J. YPMA

October 2019

Degrees

- 1978 - 1982 Oxford University, D.Phil., Mathematics
- 1976 - 1977 Oxford University, M.Sc., Mathematics
- 1975 University of Cape Town, B.Sc. (Hons.) Applied Mathematics, first class
- 1972 - 1974 University of Cape Town, B.Sc.
with distinctions in Mathematical Statistics, Mathematics, Numerical Analysis
and Computation, and the degree with distinction

Professional Experience

- 1980 - 82 Lecturer, Department of Applied Mathematics,
University of the Witwatersrand, Johannesburg, South Africa.
- 1983 Visiting Lecturer, Department of Computer Science,
University of Auckland, Auckland, New Zealand.
- 1983 - 87 Senior Lecturer, Department of Applied Mathematics,
University of the Witwatersrand, Johannesburg, South Africa.
- 1987 - 90 Assistant Professor, Department of Mathematics, WWU.
- 1990 - 96 Associate Professor, Department of Mathematics, WWU.
- 1992 - Chair, Department of Mathematics, WWU.
- 1996 - Professor, Department of Mathematics, WWU.

Refereed Publications

0. Numerical solution of systems of nonlinear algebraic equations, D.Phil. thesis, Oxford University, 1982.
1. Affine invariant convergence results for Newton's method, BIT, 22, 108-118 (1982).
2. Following paths through turning points, BIT, 22, 368-383 (1982).

3. Finding a multiple zero by transformations and Newton-like methods, SIAM Review, 25, 365-378 (1983).
4. The effect of rounding errors on Newton-like methods, IMA J. Numer. Anal., 3, 109-118 (1983).
5. Local convergence of difference Newton-like methods, Math. Comput., 41, 527-536 (1983).
6. Local convergence of inexact Newton methods, SIAM J. Numer. Anal., 21, 583-590 (1984).
7. Difference Newton-like methods under weak continuity conditions, Computing, 33, 51-64 (1984).
8. On nonlinearity and eliminating linear components from nonlinear systems, Nonlinear Analysis: Theory, Methods and Applications, 8, 757-763 (1984).
9. Linear stability of stiff differential equation solvers, BIT, 24, 394-396 (1984).
10. Convergence of Newton-like-iterative methods, Numerische Mathematik, 45, 241-251 (1984).
11. With A. deAlmeida and I. MacLeod: Requirements for the distributed real-time simulation of large-scale systems, Control 85 (Proc. IEE Conf. Control), Cambridge, 336-340 (1985).
12. Relaxed Newton-like methods for stiff differential systems, J. Comp. Appl. Math., 16, 95-103 (1986).
13. With A. R. C. deAlmeida and I. M. MacLeod: Modular simulation of large industrial plants by distributed-multirate methods, S. Afr. J. Sci., 82, 555-558 (1986).
14. Efficient estimation of sparse Jacobian matrices by differences, J. Comp. Appl. Math., 18, 17-28 (1987).
15. With A.R.C. deAlmeida and I. M. MacLeod: Distributed-multirate methods for large weakly-coupled systems of differential equations, Appl. Math. Comp., 31, 18-39 (1989).
16. Finite difference approximation of sparse Jacobian matrices in Newton-like methods, in Computational Solution of Nonlinear Equations, AMS Lecture Notes in Applied Mathematics, Vol. 26, 707-722 (1990).
17. With Y.Q. Shen: Solving nonlinear systems of equations with only one nonlinear variable, J. Comp. Appl. Math., 30, 235-246 (1990).
18. With Y.Q. Shen: Solving $N + m$ nonlinear equations with only m nonlinear variables, Computing, 43, 321-336 (1990).

19. With M. Igarashi: Relationships between order and efficiency of a class of methods for multiple zeros of polynomials; J. Comp. Appl. Math., 60, 101-113 (1995).
20. A saxpy formulation for plane rotations; Numerical Linear Algebra with Applications, 2(6), 533-541 (1995).
21. Historical development of the Newton-Raphson method; SIAM Review, 37(4), 531-551 (1995).
22. The Gerschgorin circle theorems and other contributions to: ATLAST Computer Exercises for Linear Algebra; S. Leon, E. Herman and R. Faulkenberry, editors. Prentice-Hall, 1996.
23. With G. Czerlinski and R. Levin: Short-lived intermediates in aspartate aminotransferase systems; Biophysical Journal, 72, 1135-1142, (1997).
24. With M. Igarashi: Empirical versus theoretical speed of convergence of a class of methods for solving a polynomial equation; J. Comp. Appl. Math. 2, 229-237 (1997).
25. With G. Czerlinski and R. Levin: Short-lived intermediates in hemoglobin / O₂ systems; Biophysical Chemistry and Physics, 30, 25-48 (1998).
26. With G. Czerlinski and R. Levin: Hemoglobin / O₂ systems using short-lived intermediates for mechanistic discrimination, J. Theoretical Biology, 199, 25-44 (1999).
27. With G. Czerlinski and R. Levin: Hemoglobin / O₂ systems: mechanistic discrimination based on Acker's model, Physiological Chemistry and Physics, 34, 17-42 (2002).
28. With G. Czerlinski and R. Levin: The effect of the mixing process on reaction kinetics, Int. J. Chemical Kinetics, 35, 484-496 (2003).
29. With Y.-Q. Shen: Een constructief bewijs van de middelwaardstelling (A constructive proof of the mean value theorem; in Dutch); Nieuw Archief voor Wiskunde, 5(5), 315-316 (2004).
30. With Y.-Q. Shen: Solving separable nonlinear equations with Jacobians of rank deficiency one, in: LNCS 3314: Computational and Informational Sciences, J. Zhang, J.-H. He and Y. Fu eds., Springer NY, 2004, 99-104
31. With G. Czerlinski: Mechanisms of telomerase binding to telomeres; Physiological Chemistry and Physics, 37, 89-108 (2005).
32. With Y.-Q. Shen: Newton's method for singular nonlinear equations using approximate left and right nullspaces of the Jacobian; Appl. Numer. Math., 54(2), 256-265 (2005).
33. Newton Methods for Nonlinear Problems: Affine Invariance and Adaptive Algorithms, by P. Deuffhard (Book Review); SIAM Review, 47(2), 401-403 (2005).

34. With Y.-Q. Shen: A unified approach to computing dynamical equilibria; Can. Appl. Math Quart., 14(3), 343-359 (2006).
35. With Y.-Q. Shen: Solving rank-deficient separable nonlinear equations; Appl. Numer. Math., 57(5-7), 609-615 (2007).
36. With G. Czerlinski: Detecting intermediates in the telomerase reaction; J. Bionanoscience, 1, 64-72 (2007).
37. With G. Czerlinski: Mechanisms of telomerase-dimer catalysis; J. Theoretical Biology, 250, 512-523 (2008).
38. With G. Czerlinski: Single molecule action in cancer cells; J. Bionanoscience, 2, 9-18 (2008).
39. With G. Czerlinski: Dimensional effects on single molecule kinetics in submicron vacuoles; J. Bionanoscience, 2, 19-26 (2008).
40. With Y.-Q. Shen: Numerical bifurcation of separable parameterized equations; ETNA (Elect. Trans. Numer. Anal.), 34, 31-43 (2009).
41. With G. Czerlinski: Domains of water molecules provide mechanisms of potentization in homeopathy; Water, 2, 1-14 (2009).
42. With Y.-Q. Shen: Bifurcation of solutions of separable parameterized equations into lines; Elect. J. Diff. Eqns., 19, 245-255 (2010).
43. With G. Czerlinski: Stabilization of aqueous electromeric nanodomains; J. Comp. Theor. Nanoscience, 8, 1400-1408 (2011).
44. With G. Czerlinski: Homeopathic potentization based on nanoscale domains, J. Alt. Comp. Medicine, 17, 1165-1173 (2011).
45. With G. Czerlinski: The targets of information-carrying nanodomains, J. Nanoscience and Nanotechnology, 12, 2239-2247 (2012).
46. With Y.-Q. Shen: Solving separable nonlinear systems using LU factorization, ISRN Mathematical Analysis, Article ID 258072, 5 pages. doi:10.1155/2013/258072 (2013).
47. With G. Czerlinski: Action of excited state molecular networks. J. Vortex Sci. Tech., 8 pages. doi:10.4172/2090-8369.1000103 (2013).
48. With Y.-Q. Shen: Rank deficiencies and bifurcation into affine subspaces for separable parameterized equations; Mathematics of Computation, 85, 271-293 (2016).
49. With Y.-Q. Shen: An efficient algorithm for the separable nonlinear least squares problem; Algorithms, 10 (3) 78, open access <https://doi.org/10.3390/a10030078> (10 pages) (2017).

50. With Y-Q. Shen: Solving separable nonlinear least squares problems using QR factorization. J. Comp. Appl. Math. 345, 48-58 (2019)

51. With Y-Q. Shen: Numerical solution of separable nonlinear equations with a singular matrix at the solution. Submitted for publication, April 2019.

Editor of the published Abstracts and Proceedings of the South African Symposium on Numerical Mathematics 1985 and 1986 (Reviewed in Math. Rev.)

Unrefereed Publications

1. Et al.: University of Cape Town, Urban Problems Research Unit, Project 7, Report 2 (1976).

2. Et al.: University of Cape Town, Urban Problems Research Unit, Project 7, Report 3 (1976).

3. Perturbed Newton-like methods, Proc. 8th SA Symp. Numer. Math., 161-170 (1982).

4. With A. deAlmeida and I. MacLeod: A numerical technique for distributed simulation of continuous systems, Proc. CSIR Conf. Simulation, Article XVIII, March 1986.

5. With A. deAlmeida: Computational advantages of distributed-multirate methods, Proc. 12th S.A. Symp. Numer. Math., 25-36 (1986).

6. With A. de Almeida and M. Ringstrand: A variable step-length distributed-multirate method for large scale dynamic process simulation, Proc. Conf. Progress in Arch. Construct. Eng. (PACE 87), 1987.

I have refereed papers submitted for publication to the journals: Aequationes Mathematicae; Algorithms; AMS-SIAM Conf. Proc.; Applied Numerical Math.; BIT; Internat. J. Math. Math. Sci.; J. Calcutta Math. Soc.; J. Comp. and Applied Math.; J. Math. Anal. and Appl; Math. Computation; Numerical Algorithms; Numerical Linear Algebra and its Applications; Math. Computers and Modeling; Math. Prog. Studies; SIAM J. Numerical Analysis; SIAM J. Scientific and Statistical Computation

Conferences Organized

Second Pacific Northwest Numerical Analysis Seminar, Western Washington University, 24 September 1988 (with R. Levin)

Ninth Pacific Northwest Numerical Analysis Seminar, Western Washington University, 23 September 1995 (with R. Levin and Y-Q. Shen)

Fifteenth Pacific Northwest Numerical Analysis Seminar, Western Washington University, September 2001 (with R. Levin and Y-Q. Shen)

Twentieth Pacific Northwest Numerical Analysis Seminar, Western Washington University, September 2006 (with Y-Q. Shen and S. Ural)

Twenty-ninth Pacific Northwest Numerical Analysis Seminar, Western Washington University, October 2015 (with T. Glimm, Y.-Q. Shen and J. Zhang)

Graduate Student Projects Supervised

Andy Oakley: Cholesky Factorization and Positive Definiteness; 1991-2.

Joe Anderson: Condition Number Estimation and the Singular Value Decomposition; 1992-3.

Arlene Wade: Condition Number Estimation through Nonsmooth Optimization; 1993-4.

Steve Yramategui: Componentwise Error and Sensitivity Analysis for Linear Equations; 1996-7.

Ben Casler: B-Splines; 2003-4.

Bryan Smith: Krylov Subspace Iterative Methods for Linear Equations; 2007-8.

Michael Mazack: Techniques for Handwritten Digit Recognition; 2008-9.

Victoria Anderson: Non-negative Matrix Factorization; 2010-11.

Catherine Potts: Blurring and Deblurring Images via Linear Algebra; 2011-12.

Kamuran Chabuk: Efficient Computation of Search Engine Rankings; 2012-13.

Cari Jameson: Text Mining: Document Retrieval and Key Sentence Extraction; 2013-14.

Derek Wheel: Facial Recognition - Eigenfaces and Tensorfaces; 2014-15.

Undergraduate Honors / Research Projects:

Sam Pollard: Computing PageRank using the Conjugate Gradient Method; 2013-14.

Jamie McMullen: Image Blurring and Deblurring; 2018.

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October 21, 2019

City of Everett RFP #2019 – 114 : Districting Master Position

To Whom It May Concern:

This is to notify you of my willingness to serve as the Districting Master for the purposes of creating 5 voting districts for the Everett City Council elections, as outlined in your RFP #2019-114 dated 10.9.19.

I wish to emphasize the word 'willingness' in the above line. I have some previous relevant experience, and enjoyed the task, and in that sense I am willing to do it again although not actively seeking the work. More specifically, I have twice (in 2011 and 2017) served as the Districting Master for Whatcom County. The process I followed was open, efficient and effective, with my final district plan adopted unanimously by the committees to which I reported in both cases. This was particularly pleasing in the second case, which was politically sensitive and involved a great deal of public grandstanding and personal animosity between the committee members (two Democrats and two Republicans). If I could run the districting process in a similar way in Everett, this could be an equally challenging but fun and rewarding project.

I did not get paid for my work for Whatcom County, and I do not propose to get paid for any work I may do for Everett. That being said, there are likely to be some travel costs involved (I live in Bellingham) and it would be nice to get some reimbursement for those costs. Let me be totally upfront: I do not intend to fulfil any of the insurance and licensing requirements listed in the draft contract; I would be doing this purely on a voluntary basis and I have no interest whatsoever in contracts or in profiting from this work.

I greatly appreciate the fact that this task is loosely defined, so that a range of different approaches can be considered. The proposal below is essentially what worked for me in Whatcom County, where the role of the Districting Master is rather minimally defined by the County Charter and the incumbent has a lot of freedom, but other parts of the process are quite clearly delineated. In that context I could, legally, have developed a plan without any scrutiny at all and then handed it to an unsuspecting committee, but I implemented a system of open public meetings at which successively refined versions of the plan and options were discussed. This worked very well, and I propose to proceed similarly in Everett.

I understand that parts of the districting process have yet to be agreed upon in the Everett context, and some leadership may be required to put that in place. It is certainly my experience that the Districting Master has to do some committee management to facilitate completion of the process in a timely way. In this regard, even if I do not do the actual districting I would be happy to give the relevant committee my advice on how they might most effectively accomplish their task.

Below are my responses to the issues raised in the RFP.

Yours Sincerely

Tjalling Ypma

BIOGRAPHY

I attach a complete professional resume'. Perhaps the most salient points are that I have a doctorate in Mathematics from Oxford University and have served as the Chair of the Department of Mathematics at Western Washington University for the last 27 years and counting, managing about 50 faculty members. My expertise is primarily in computational mathematics although I have also worked in biochemistry; I have about 50 publications, and my most frequently referenced publication has well over 700 citations.

I am a citizen of the Netherlands, although I was born in Japan and speak English with a South African accent. I have been a resident alien in the USA since August 1987. I have no voting rights in the USA.

As an outdoor enthusiast and endurance athlete my volunteer activities and affiliations have primarily focused on environmental conservation and supporting local sporting events, for example as a Board member of the Greater Bellingham Running Club for the last 20 years.

The only documents I have published concerning districting are the two Whatcom County Council electoral district maps I have drawn up. The current map is in use in the current election cycle.

As previously mentioned, I am a member of several environmental conservation organizations, such as the Washington Wildlife and Recreation Coalition and the Nature Conservancy. I am also a member of several national sporting organizations like IMBA, and a member of several mathematical associations.

I have no personal experience of Everett's political, social or economic makeup. It is my understanding that certain parts of the City, particularly the southern regions, have rarely been represented on the City Council, and that this has largely prompted the change to 5 electoral districts. This change will by default address that disparity in representation, be it due to economic or political factors or for other reasons. I am a strong believer in democracy and wide representation, so I warmly welcome this development.

I am employed full-time as a full Professor and the Chair of the Department of Mathematics at Western Washington University, where I started in August 1987. I have chaired the department since April 1992.

QUALIFICATIONS

I get the impression that this part of the application process is aimed at any professionals who may apply. I am not a districting professional, so I can only refer to my successful redistricting work for Whatcom County in 2011 and 2017.

In each of those two instances the task was essentially completed within a time span of 3 months. That time span included an initial consultation with the committee, three or four successive public meetings with the committee, a week or two apart, in which I presented various options and successively refined proposals, and a final meeting to accept a suitably amended final proposal. It was very straightforward.

I do not practice in the political community other than in a technical capacity in the instances previously described. In both of those cases the quality of my work was evidenced by the unanimous adoption of my proposals despite the political heat encountered along the way. In the case of the hotly contested 2017 redistricting process some friends shook their heads at my taking on "the most thankless task in Whatcom County"; so I am really pleased to have gotten everybody on board with my proposal. I made it clear to the committee that my goal was not to make everybody happy; it was to make everybody equally unhappy. That even-handedness was apparently appreciated and the compromises accepted.

Total transparency is critical for this process. The only communication between the committee and myself, outside of committee meetings open to the public, would have to be through an appointed representative of the City (the County Clerk, in the case of Whatcom County). All the GIS work would be done by a designated member of the City's GIS team, assigned to this task, with whom I communicate only by email, so that every interaction and question is on the public record. The meetings of the committee need to be scheduled well in advance and be open to the public, so that they can see the proposals and have ample opportunity to provide input, and the associated draft maps developed at every step should be made available for scrutiny by the City on a website associated with the process.

APPROACH

Establishing a widely acceptable district map involves transparency, listening to peoples' concerns, making everybody aware of the need for compromise, and recognizing that it is impossible to make everybody happy while obeying the letter of the law regarding acceptable district boundaries. In my experience people tend to be reasonable when treated with respect and given a fair open hearing.

Here is the process I envisage:

1. An initial meeting with the Commission to establish the ground rules and get a handle on the principles and issues in play from their perspective, and perhaps to sketch out some options.
2. A succession of meetings with the Commission, open to the public, at each of which I present one or two alternative scenarios, these usually being iterative refinements of previous scenarios that respond to input from the Commission or the public. The venue used would need adequate projection facilities to display the maps, and adequate seating for the public. In my experience, 3 or 4 such meetings spaced about 2 weeks apart are usually adequate. I would plan to submit the draft maps a few days before the meetings so that they can be posted on the relevant website for public review prior to the meeting.
3. Following a mutually agreed protocol, I submit a 'final draft', which is then reviewed at a succession of public forums.
4. Following a mutually agreed protocol, I submit a 'final proposal', which the Commission gets to adopt or adapt as they see fit.

The “mutually agreed protocols” mentioned above are critical. They need to include provisions along the lines that upon some given mutually agreed date I will submit (or make public) the relevant document, and the Commission must then take specific action within a given time frame. The Districting Master needs to have some control here, by triggering action, in order to move the process along expeditiously.

The process of drawing up the maps would be done in conjunction with the GIS department of the City. They will draw the districts, and compute the relevant population figures, based on their census data and maps, following my instructions on which areas (typically voting precincts) to include in which districts. All communication with them and myself will be via email, and thus on the public record.

The usual districting rules requiring compact and contiguous areas, and respecting communities of interest and natural or other major boundaries, apply. To a significant extent these communities of interest and natural boundary lines are probably already established by way of the neighborhood designations and, to a lesser extent, voting precincts. The public expressed an interest in maintaining neighborhood cohesion, so that is a goal, although clearly not every neighborhood can remain within a single district. I do not envisage any issues with RCW 29A.76. The potential impact of SB 6002 is more nebulous, but I would largely follow the recommendations on this matter laid out in the letter of Hugh Spitzer to Jim Iles, dated March 2, 2018, principally by inviting public input on the successive draft proposals so that any relevant concerns can be addressed in the process of developing the final plan.

I am generally available except for the last two weeks of March (cycling in Italy), the middle week of June (cycling in France) and the first two weeks of September (cycling across Germany and Austria).

A possible timeline would be: a preliminary meeting in late January; two meetings in February – early March; another two meetings in early April – early May, with a ‘final draft’ ready by late May. That leaves plenty of time for community forums and the like before a final plan is adopted. Evening meetings would probably be easier for me to accommodate than daytime meetings.

PRICE PROPOSAL

I do not propose to charge anything for my services. This is in part because I have no interest in jumping through the bureaucratic hoops associated with the licensing and insurance requirements listed on the standard PSA, whereas doing the job itself would probably be quite entertaining and challenging.

That being said, reimbursement of travel expenses associated with meeting attendance, and perhaps for one or two other more extended visits to Everett as I familiarize myself with the city layout at first hand, would be appreciated. Likewise I would not turn down an honorarium if that were eventually offered.

Rough time / cost estimates:

12 return trips of about 120 miles @ 50c/mile is about \$750;

10 meetings of an hour each, plus an hour of travel time at each end and an hour of prep time, comes to 40 hours of my time;

Drawing up the maps: 10 successive versions, at 4 hours each, totals another 40 hours of my time.

At a going rate of \$100 per hour, a ballpark overall cost estimate of \$10,000 seems reasonable.

TJALLING J. YPMA

October 2019

Degrees

- 1978 - 1982 Oxford University, D.Phil., Mathematics
- 1976 - 1977 Oxford University, M.Sc., Mathematics
- 1975 University of Cape Town, B.Sc. (Hons.) Applied Mathematics, first class
- 1972 - 1974 University of Cape Town, B.Sc.
with distinctions in Mathematical Statistics, Mathematics, Numerical Analysis
and Computation, and the degree with distinction

Professional Experience

- 1980 - 82 Lecturer, Department of Applied Mathematics,
University of the Witwatersrand, Johannesburg, South Africa.
- 1983 Visiting Lecturer, Department of Computer Science,
University of Auckland, Auckland, New Zealand.
- 1983 - 87 Senior Lecturer, Department of Applied Mathematics,
University of the Witwatersrand, Johannesburg, South Africa.
- 1987 - 90 Assistant Professor, Department of Mathematics, WWU.
- 1990 - 96 Associate Professor, Department of Mathematics, WWU.
- 1992 - Chair, Department of Mathematics, WWU.
- 1996 - Professor, Department of Mathematics, WWU.

Refereed Publications

0. Numerical solution of systems of nonlinear algebraic equations, D.Phil. thesis, Oxford University, 1982.
1. Affine invariant convergence results for Newton's method, BIT, 22, 108-118 (1982).
2. Following paths through turning points, BIT, 22, 368-383 (1982).

3. Finding a multiple zero by transformations and Newton-like methods, SIAM Review, 25, 365-378 (1983).
4. The effect of rounding errors on Newton-like methods, IMA J. Numer. Anal., 3, 109-118 (1983).
5. Local convergence of difference Newton-like methods, Math. Comput., 41, 527-536 (1983).
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7. Difference Newton-like methods under weak continuity conditions, Computing, 33, 51-64 (1984).
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12. Relaxed Newton-like methods for stiff differential systems, J. Comp. Appl. Math., 16, 95-103 (1986).
13. With A. R. C. deAlmeida and I. M. MacLeod: Modular simulation of large industrial plants by distributed-multirate methods, S. Afr. J. Sci., 82, 555-558 (1986).
14. Efficient estimation of sparse Jacobian matrices by differences, J. Comp. Appl. Math., 18, 17-28 (1987).
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Editor of the published Abstracts and Proceedings of the South African Symposium on Numerical Mathematics 1985 and 1986 (Reviewed in Math. Rev.)

Unrefereed Publications

1. Et al.: University of Cape Town, Urban Problems Research Unit, Project 7, Report 2 (1976).

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3. Perturbed Newton-like methods, Proc. 8th SA Symp. Numer. Math., 161-170 (1982).

4. With A. deAlmeida and I. MacLeod: A numerical technique for distributed simulation of continuous systems, Proc. CSIR Conf. Simulation, Article XVIII, March 1986.

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6. With A. de Almeida and M. Ringstrand: A variable step-length distributed-multirate method for large scale dynamic process simulation, Proc. Conf. Progress in Arch. Construct. Eng. (PACE 87), 1987.

I have refereed papers submitted for publication to the journals: Aequationes Mathematicae; Algorithms; AMS-SIAM Conf. Proc.; Applied Numerical Math.; BIT; Internat. J. Math. Math. Sci.; J. Calcutta Math. Soc.; J. Comp. and Applied Math.; J. Math. Anal. and Appl; Math. Computation; Numerical Algorithms; Numerical Linear Algebra and its Applications; Math. Computers and Modeling; Math. Prog. Studies; SIAM J. Numerical Analysis; SIAM J. Scientific and Statistical Computation

Conferences Organized

Second Pacific Northwest Numerical Analysis Seminar, Western Washington University, 24 September 1988 (with R. Levin)

Ninth Pacific Northwest Numerical Analysis Seminar, Western Washington University, 23 September 1995 (with R. Levin and Y-Q. Shen)

Fifteenth Pacific Northwest Numerical Analysis Seminar, Western Washington University, September 2001 (with R. Levin and Y-Q. Shen)

Twentieth Pacific Northwest Numerical Analysis Seminar, Western Washington University, September 2006 (with Y-Q. Shen and S. Ural)

Twenty-ninth Pacific Northwest Numerical Analysis Seminar, Western Washington University, October 2015 (with T. Glimm, Y.-Q. Shen and J. Zhang)

Graduate Student Projects Supervised

Andy Oakley: Cholesky Factorization and Positive Definiteness; 1991-2.

Joe Anderson: Condition Number Estimation and the Singular Value Decomposition; 1992-3.

Arlene Wade: Condition Number Estimation through Nonsmooth Optimization; 1993-4.

Steve Yramategui: Componentwise Error and Sensitivity Analysis for Linear Equations; 1996-7.

Ben Casler: B-Splines; 2003-4.

Bryan Smith: Krylov Subspace Iterative Methods for Linear Equations; 2007-8.

Michael Mazack: Techniques for Handwritten Digit Recognition; 2008-9.

Victoria Anderson: Non-negative Matrix Factorization; 2010-11.

Catherine Potts: Blurring and Deblurring Images via Linear Algebra; 2011-12.

Kamuran Chabuk: Efficient Computation of Search Engine Rankings; 2012-13.

Cari Jameson: Text Mining: Document Retrieval and Key Sentence Extraction; 2013-14.

Derek Wheel: Facial Recognition - Eigenfaces and Tensorfaces; 2014-15.

Undergraduate Honors / Research Projects:

Sam Pollard: Computing PageRank using the Conjugate Gradient Method; 2013-14.

Jamie McMullen: Image Blurring and Deblurring; 2018.

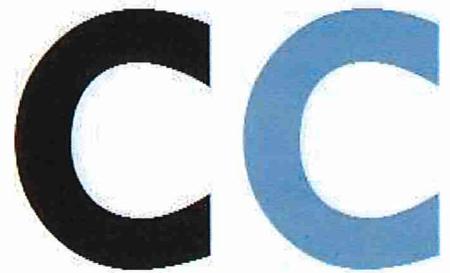
**District Master
Redistricting Services**

for

Everett, WA

by:

**Anthony "Tony" Fairfax
CensusChannel LLC**



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INTRODUCTION

The City of Everett...is seeking the services of a district master to provide districting services. The City is moving from an at large council to a 5:2 model (5 districts and 2 at large) as passed in 2018 by the voters. The City will need to accomplish a complete and comprehensive plan to ensure successful districting practices.

Therefore, I am pleased to submit this proposal for District Master Redistricting Services to the city of Everett, Washington, in response to the Request for Proposal #2019-114.

REQUEST FOR PROPOSAL QUESTIONS

1. BIOGRAPHY

- a. Where did you go to school? What degree did you pursue?

My Master's degree is from NC State University in Geospatial Information Science and Technology (MGIST), and my bachelor's degree is from Virginia Tech in Electrical Engineering.

- b. Have you ever fought for a political cause? Which cause was it and why did you fight for it?

I have not fought for a particular political cause. I do believe in fair voting representation for all citizens.

- c. Have you published any recent documents on topics related to districting? If yes, please list them.

I have not published recent documents on redistricting.

- d. Are you a part of any professional memberships or volunteer organizations?

I am on the Advisory Board for Virginia Tech's Electrical and Computer Engineering (ECE) Dept. and I volunteer as a Trustee for my church (First Baptist Church of Hampton, Virginia)

- e. What would you like to see change in the City's current political and social atmosphere?

Unfortunately, I am not familiar enough with the political and social dynamics of Everett, WA. I would imagine if it is like most cities, it can be trying at certain times and calm at others.

- f. Are you currently employed full-time?

I am a fulltime Independent Consultant for my company CensusChannel LLC (a single-member LLC).

See the Appendix for full resume

1. QUALIFICATIONS AND EXPERIENCE

- a. Provide a list of local governments that you are currently working for or have worked for. This listing should include the organization name and the length of time you worked with them.

I am not currently working for any local government. In the distant past (see resume) I have provided services for local governments, including:

- Miami/Dade, FL - Special Master's Team – Redistricting Plan Development (1 week)
- New York City Housing Authority - Redistricting Training (1 day)
- Maryland State Office of Planning - Redistricting Tech Support (over 2 years)
- City of Virginia Beach, VA Planning Dept. - Redistricting Training/Tech Support (initial training and support over several weeks on-call)
- City of Norfolk, VA Registrar - Redistricting Training/Tech Support (1 day)
- City of Chesapeake, VA Registrar - Precinct Realignment (over several weeks)

- b. From the list of local governments above, what was your procedure? What was your timeline for implementation?

In all cases, a preliminary meeting or discussion with the point of contact occurred prior to any services. Ultimately, we agreed on the time frame and scope of any support services.

- Miami/Dade redistricting plans were developed onsite over a week's time.
- New York City Housing Authority personnel were trained onsite housing personnel on how to utilize the ReapS redistricting software over single days' time.
- Maryland's State Dept of Planning person was trained on redistricting and provided technical support over a 2-year period of time.
- City of Norfolk, VA, registrar person was trained on aspects of developing a redistricting plan over a single days' time.
- City of Chesapeake, VA, registrar person was trained on aspects of developing a redistricting plan as well as how to perform precinct realignment (the adjustment made to precincts after the redistricting process where split precincts are combined with other precincts or left standalone). This occurred over several weeks' time.

- c. How long have you been practicing in the political industry?

I have been involved in political redistricting for over 28 years and have provided services through three (3) redistricting cycles (1990, 2000, and 2010). During that span of time, I have personally developed nearly one thousand redistricting plans ranging from small jurisdictions to statewide plans. I have also reached the level of testifying in federal and state court as an expert witness.

- d. How do you measure quality of the services you offer? How often?

I measure the quality of my services by whether the client is satisfied by discussing with them past and current project efforts. Practically all of my clients come from recommendations, hence the need for me to always provide quality services.

- e. Please describe your procedures used to communicate timely and effectively with the City's District Commission and the City of Everett citizens.

I would recommend that telephone or email communications will provide quick answers to the District Commission. Response time will be within one business day. Also, most of the meetings could occur via periodic teleconference facilitated by online collaborative technology (Zoom, Go to Meeting, etc.).

For communications with citizens, I suggest posting district ideas or concepts to a webpage used for citizen reviewal and comments. Nonetheless, although I am an advocate for the use of technology, face-to-face meetings should always be integrated into plan development. I expect to work onsite for some plan development and community meetings.

2. APPROACH AND CAPABILITY

- a. What is your overall idea of your implementation?

I recommend the following process:

1. Research Everett, WA redistricting criteria or guidelines and data requirement
2. Initial meeting with District Commission onsite
3. Research various communities, major district subdivisions, and obtain required data (work extensively with the planning dept)
4. Determine whether or not (and possibly how) citizens will have access to a redistricting system (onsite or online) and online access to plans
5. Obtain District Commission input for initial draft and community input from local organizations
6. Develop initial draft concept plan (district maps and data report)
7. Submit an initial plan to District Commission for comments
8. Adjust the draft plan according to District Commission comments
9. Post draft concept plan for citizen input (district maps and data reports)
10. Adjust the draft plan according to citizen input
11. Post draft concept plan for additional citizen input
12. Repeat 8 - 11 as required (the Everett's Districting website indicates up to 6 meetings)
13. Present Final Draft plan (district maps and data) via online and public forum
14. Make minor adjustments for District Commission approval
15. Obtain final approval from District Commission
16. Submit all relevant data (block assignments, maps, data reports, final report) to the city

Note: This process may be modified to integrate specific desires of the city

b. What do you hope to achieve with the City's districting plan?

My central goal would be to develop a plan that fairly represents the population and communities of Everett and is drawn to adhere to traditional redistricting criteria and the state's voting rights act.

c. How do you plan to address any complaints or comments from community forums or meetings regarding your districting plan?

Complaints will always be addressed respectfully and answered honestly. If a suggestion was not adopted or changed, a rationale would be provided on why it was not adopted.

d. What is your availability to complete the work within the state time frame?

I am available to perform and complete the proposed work within the stated time frame.

e. What other districting work are you currently doing?

I am working with the NAACP Legal Defense Fund on district plan analysis of select jurisdictions. I am also working with the Campaign Legal Center to develop a districting plan that shows the potential to create a majority-minority district for the city of Virginia Beach, VA. I have developed an expert report, provided testimony in a deposition, and I am awaiting to provide testimony in the trial.

f. Describe your approach to re-district the City of Everett and to stay in compliance with RCW 29A.76.

The redistricting criteria for the state are very similar to others in that it directs the use of traditional redistricting criteria that will be followed, including:

- 1. Equal population (will limit overall plan deviation to 10% or use lower guidelines passed by the Districting Commission).**
- 2. Compactness (will use three compactness measures: Reock, Polsby-Popper, and Convex Hull).**
- 3. Contiguity (will ensure areas of each district are touching with the exception of annexation, island areas, etc.).**
- 4. Race or political parties will not be favored or disfavored during plan development.**
- 5. If feasible, natural boundaries will be followed.**
- 6. Existing communities of interest should be preserved.**

An additional paragraph in RCW 29A.76 includes holding at least one public hearing on the redistricting plan at least one week before the adoption of the plan. In addition, the city must also ensure that the plans adhere to the Federal and State's Voting Rights Act.

3. PRICE PROPOSAL

- a. Hourly rate

Hourly Rate is \$200.00/hour (I am also amenable to a fixed-fee contract)

- b. Cost per community forum or meeting

1. **Onsite community forum or District Commission Meeting - \$1,900 plus \$800 for one full travel day (half-day to and half-day from) plus travel expenses (hotel, food, airport transfer, etc.)**
2. **Community forum or District Commission Meeting via teleconference - \$325.00/hour**
3. **Onsite/Offsite workdays and meeting preparations are billed at \$200/hour**

- c. Additional services provided

1. **Potential Litigation Redistricting Expert Services**

Appendix

Resume

of

Anthony “Tony” Fairfax

Anthony "Tony" Fairfax

16 Castle Haven Road, Hampton, Virginia 23666
Office Telephone: (757) 838-3881/Home Telephone: (757) 838-0832
Email: fairfax@censuschannel.com

Experience Highlights:

- Demographic, Geographic & Voter Data Analysis
- Multiple GIS Software/Census Data Skillset
- Redistricting Plan Development & Analysis
- Expert Report Development & Court Testimony
- Project Management, Planning & Budgeting
- Client Acquisition, Collaboration & Support
- Professional Presentation/Training Experience
- Manual/Book Publication Development

Education:

Master of Geospatial Information Science and Technology (2016)
North Carolina State University, Raleigh, North Carolina

Graduate Certificate in Geographic Information Systems (2016)
North Carolina State University, Raleigh, North Carolina

Bachelor of Science Degree in Electrical Engineering (1982)
Virginia Tech, Blacksburg, Virginia

Work Experience:

CensusChannel LLC, Hampton, VA (2009 - Present)

CEO & Principal Consultant - Providing overall project management and operations as well as primary consulting services for clients. Also, responsible for customer acquisition and support. Core tasks include GIS-centered services: redistricting support (extensive use and analysis of traditional redistricting criteria or guidelines); demographic/socioeconomic, geographic, voting data; GIS/Census Data/Redistricting training; GIS data processing/conversion; expert redistricting plan development, analysis, depositions, testimony, and training. Major clientele and projects include:

- **NAACP Legal Defense Fund (LDF), New York, NY (2019 - Present)** – Providing a variety of redistricting analysis services on various jurisdictions.
- **Campaign Legal Center, Washington, DC (2018 – Present)** – Developing illustrative redistricting plan, associated expert report, and potentially testifying for *Latasha Holloway v City of Virginia Beach*. The Illustrative Plan includes two majority Hispanic, Black, and Asian combined districts for the purpose of providing evidence of the first prong in *Gingles* for the city of Virginia Beach.
- **NAACP, Baltimore, MD (2018 - Present)** – Providing GIS consulting services for the purpose of building out the NAACP hosted Data Analytics Hub. Specific focus will be to assist in developing voter registration and electoral targeting maps and data for the Data Analytics Hub.
- **Southern Echo, Jackson MS (2018 - Present)** – Providing GIS ready data and GIS training to Southern Echo, community leaders, stakeholders and subsequently in the field to groups working in the following states; Alabama, Arkansas, Georgia, Florida, Louisiana, Mississippi, New Mexico, North Carolina, South Carolina, and Texas. Specifically, the work will entail the development of capacity using the newest version of redistricting software selected. The development of this capacity would be coupled with the generation of GIS data needed for the training programs

- **Southern Coalition for Social Justice [SCSJ], Durham, NC (2015 - 2018)** - Provided several expert reports, depositions and testimony for multiple redistricting court cases in North Carolina. Testimony, depositions and reports included numerous plans at the congressional, state senate, state house, and local jurisdiction level. Analysis covered certain district characteristics, including population deviation, political subdivision splits, partisan performance, and incumbent effect analysis.
- **The Rehab Crew, Durham, NC (2017)** - Provided geospatial & demographic analysis as well as website development and a proprietary application for use of targeting real estate investment properties.
- **Congressman G.K. Butterfield, NC (2016)** - Developed several congressional district plan alternatives for the State of North Carolina. Provided various analysis on alternative district configurations.
- **Alabama Democratic Conference (ADC), Montgomery, AL (2015 - 2016)** - Developed state senate and house redistricting plans for the state of Alabama in response to the *ADC v Alabama* court case. Also, provided a series of thematic maps depicting areas added from the previous plan to the enacted plan, displaying concentrations of African American voters that were added to the enacted plan.
- **Net Communications, Tallahassee, FL (2014 - 2015)** - Generated offline mapping and online web services (ArcGIS.com) of client's energy company's resources and organizational assets. Mapping included demographic, socioeconomic, and other resources of the energy company.
- **National NAACP Office of General Counsel, Baltimore, MD (2012 - 2013)** - Provided project management and developmental support for the creation of a final report for the NAACP National Redistricting Project. Provided planning, organizing, supplemental writing, and interfacing with graphics entity for the complete development of the final report.
- **Congressional Black Caucus Institute, Washington, DC (2011 - 2012)** - Provided contract duties as the Project Director and Consulting Demographer for the Congressional Black Caucus Institute's Redistricting Project. Provided project management, redistricting plan development, review, analysis, advice, and answers to various questions pertaining to redistricting plans, principles, and processes.
- **Mississippi NAACP, Jackson, MS (2011)** - Developed state senate plans and analyzed enacted plans that were developed by the State Court.
- **African American Redistricting Collaborative (AARC) of California, Los Angeles, CA (2011)** - Provided demographic and redistricting contracted services. Responsible for developing congressional, state senate and state assembly plans for the collaborative. Special focus was given to the southern Los Angeles area (SOLA) and the Bay Area region. In addition to plan development, several socioeconomic maps were developed to show various communities of interest commonalities.

Developed a demographic profile using maps and reports of California's congressional, state senate, and state assembly districts for the purpose of preparing for the redistricting plan development process by identifying areas of growth throughout the state. The profiles included data from the American Community Survey (ACS) 2005-2009 and the 2010 Census.
- **The Advancement Project, Washington, DC (2011)** - Provided redistricting plan development services and training. Included was the development of a base map for a new seven (7) district plan in New Orleans that were further developed by community groups in Louisiana. The second effort included training a staff person on the use of Maptitude for Redistricting as well as on various redistricting scenarios.

- **Louisiana Legislative Black Caucus (LLBC), Baton Rouge, LA (2011)** - Provided redistricting plan development services. Responsibilities included supporting the Caucus members' efforts to develop state house, state senate, and congressional redistricting plans. Developed or analyzed over eighty different redistricting plans. The effort also included testifying in front of the Louisiana Senate and Governmental Affairs committee.
- **Community Policy Research & Training Institute (One Voice), Jackson, MS (2011)** - Developed Mississippi State Senate plan along with appropriate reports and large scaled map.
- **National Black Caucus of State Legislators (NBCSL), Washington, DC (2010)** - Provided services as the Project Director for a 2010 census outreach effort. Developed proposal and managed personnel to generate and execute a strategy to utilize black state senate and house legislators to place targeted posters in select hard-to-count (HTC) areas throughout the country.
- **Duke University's Center for REGSS & SCSJ, Durham, NC (2010 - 2011)** - Contracted to serve as one of two Project Coordinators to support an expert preparation workshop hosted by Duke University's REGSS and the Southern Coalition for Social Justice.

Project Coordinator duties included developing, managing, and providing hands-on training for the Political Cartographer's side of a week-long intensive "redistricting expert" preparation workshop. The workshop trained 18 political cartographers, who came from various parts of the country, on all aspects of redistricting plan development and principles. Also, developed two hands-on redistricting scenarios that were developed in order for the workshop to train large audiences on the plan development process without the use of computers.

Democracy South, Virginia Beach, VA (2004 - 2008)

Senior Technical Consultant - Provided technical, GIS mapping, data analysis, and management support for several projects and civic engagement related efforts. Major project efforts included:

- Senior Technical Consultant for the National Unregistered Voter Map. Developed a web-based interactive map that allowed visitors to view state/county level information pertaining to the number of unregistered voters (2009)
- Co-Director of the Hampton Roads Missing Voter Project (a nonpartisan nonprofit voter engagement effort to increase voter participation with a focus on underrepresented population groups). The effort covered the seven major Independent cities in Hampton Roads. Responsibilities included co-managing the overall civic engagement effort and was solely responsible for integrating and processing Catalist voter data into targeting maps and walk lists for all focus areas. Directly Responsible for overseeing the operations in Hampton, Newport News, Portsmouth, and Suffolk, Virginia (2008)
- Senior Technical Consultant for Civic Engagement Efforts. Provided telephone technical voter database support to 17 USAction state partners in 2004; and 12 USAction state partners in 2006. Trained client on VBASE voter data software; Performed voter data conversion; and voter targeting assistance.

Congressional Black Caucus Institute, Redistricting Project, Washington D.C. (2001 - 2003)

Consulting Demographer - Provided services that included the development, review, and analysis for over 75 congressional district plans. Responsible for all setup and configuration of hardware and GIS software. Also, performed the development and analysis of redistricting plans. Congressional district plans were developed for 22 states. Also, performed as a redistricting expert advisor in a consolidated U.S. District court Voting Rights case in Alabama.

National Voter Fund, Washington, D.C. (2000)

GIS Consultant (in a consulting partnership of Hagens & Fairfax) - Developed hundreds of precinct targeting maps for a civic engagement effort designed to increase the turnout in the November 2000 election. Efforts included: geocoding voter data; census data integration; and precinct mapping.

Norfolk State University, Poli. Science & Computer Science Dept., Norfolk, Virginia (1996 - 2001)

Adjunct Faculty - Provided instruction to students for BASIC Programming, Introduction to Computer Science, and Computer Literacy courses.

GeoTek. Inc. (formally GIS Associates), Virginia Beach, VA (1992 - 1995)

Consultant and Co-owner - Provided geodemographic research and analysis; client technical & training support; hardware/software system installation; and redistricting manual/ brochure development. Major clients and tasks included:

- New York City Housing Authority - Redistricting Training
- Maryland State Office of Planning - Redistricting Tech Support
- City of Virginia Beach, VA Planning Dept. - Redistricting Training/Tech Support
- City of Norfolk, VA Registrar - Redistricting Training/Tech Support
- City of Chesapeake, VA Registrar - Precinct Realignment

Norfolk State University, Political Science Dept., Norfolk, Virginia (1991 - 1999)

GIS Consultant - Provided a variety of geographic and demographically related tasks. Major Redistricting related tasks included:

- Installed and operated the LogiSYS ReapS software that was used to perform the bulk of redistricting plans. Performed the intricate ReapS processing of the U.S. Census Bureau Topographically Integrated Geographic Encoded Referencing (TIGER) line files, Public Law 94-171 (PL94-171) demographic data, and the STF socioeconomic data series.
- Developed over 200 hundred redistricting plans, located in over 60 jurisdictions, in the states of Florida, Louisiana, North Carolina, Texas, and Virginia. Developed plans from city/county to legislative to congressional district.
- Traveled to and trained several university faculty personnel on setting up and utilizing the ReapS redistricting system. Also, trained on redistricting plan development principles.

Major GIS related tasks included:

- Performed a study commissioned by the U.S. Department of Transportation to analyze the ethnic differences in commuting behavior. This study extensively utilized the Summary Tape File 3 A (STF3 A) and Public Microdata Sample (PUMS) data to locate, map and report the frequency and average travel time to and from work for: Miami, FL MSA; Kansas City, MO-KS MSA; and Detroit, MI MSA.
- Performed a study funded by the City of Norfolk, VA and NSU School of Business that determined and analyzed the trade area of a section located in Norfolk, VA. Major duties included: geocoding customer addresses; producing address point maps; and developing demographic reports for the project.
- Performed a study commissioned by the U.S. Department of Housing and Urban Development (HUD) to revitalize a neighborhood located in Norfolk, VA. The purpose of the GIS component was to first establish a socioeconomic base-line then track the progress of the revitalized area as well select surrounding areas. Geocoded address locations, generated point as well as demographic thematic maps, and produced reports of the target areas.

- Provided demographic analysis of proposed newly incorporated areas in Florida for local Florida civic organizations.

Cooperative Hampton Roads Org. for Minorities in Engineering, Norfolk, VA (1991 - 1992)

Computer Consultant - Designed and developed a menu driven student database, used to track hundreds of minority Junior High and High School students that were interested in pursuing science or engineering degrees.

Norfolk State University, School of Education, Norfolk VA (1990 - 1991)

Technical Consultant/Computer Lab Manager- Provided a variety of support to include hardware and software installation; faculty workshops; course instruction; Network Administrator; and technical support.

Engineering and Economics Research (EER) Systems (1989)

Technical Consultant - Coordinated and participated in writing, editing, and formatting technical test documents; central role in the development of the Acceptance Test Procedures for the initial phase of a multimillion dollar Combat Maneuver Training Complex (CMTC) in Hohenfels, Germany; the final review and editing of all test documentation.

Executive Training Center (ETC). Newport News, VA (1988 - 1989)

Vice President & Co-owner - Managed over 11 part-time and full-time employees; assisted in developing and implementing company policies; performed the duties of the Network Administrator for a Novell-based computer training network; and taught several courses by substituting for instructors when necessary (1988- 1989).

Engineering & Economics Research (EER) Systems. Newport News, VA (1986 - 1987)

Hardware Design Engineer and Electronics Engineer - Provided engineering and select project management support for development of the following million/multimillion dollar project efforts:

- Baseline Cost Estimate (BCE) to be used in the procurement of the Combat Maneuver Training Complex - Instrumentation System (CMTC-IS)
- Operational and Maintenance (O&M) Support Plan at the National Training Center (NTC)
- Quality Assurance Surveillance Plan for the O&M Support Plan at the NTC; Configuration Management Plan for CMTC
- Requirements Operational Capabilities (ROC) Analysis for an instrumentation System at the U.S. Army Ranger School, Georgia;
- ROC Analysis for an Instrumentation System at Fort Chaffee, Arkansas;
- Suggested Statement of Work for the Digital Data Entry Device (DDED); and the Concept Formulation Package and Requirements Definition to Support interface and integration of Red Flag at the NTC:
- Phase II of a multi-million dollar GIS-based concept test demonstration. Performing as Assistant Test Director (ATD) - liaison between the Government Director Army Ranges and Targets (DART) personnel and EER Systems' personnel; and assumed the role of Test Director when required (1987).
- Suggested Statement of Work (SOW) for a \$1 million procurement of Multivehicle Player Units (MVPUs) at the NTC. Performing as Project Task Manager for a team of engineers, computer programmers, and technical support personnel in the development of a (1986).

Teledyne Hastings-Raydist, Hampton, VA (1982 - 1986)

Hardware Design Engineer - Designed and developed custom flow and vacuum measuring products; Project Manager for the production and completion of a \$.25 million flow measuring system; Electrical Engineer - Chiefly responsible for developing special products for customers.

Major Litigation & Testimony Related Efforts:

Campaign Legal Center, Washington, DC (2018 – 2019)

Developed an illustrative redistricting plan, associated expert report, and deposition for *Latasha Holloway v City of Virginia Beach*. The Illustrative Plan included two majority Hispanic, Black, and Asian combined districts for the purpose of providing evidence of the first prong in *Gingles* for the city of Virginia Beach.

Virginia NAACP, Richmond, VA (2018)

Developed a statewide remedial plan for *Bethune-Hill v. Virginia State Bd. of Elections*. The Plan corrected 11 unconstitutional racial gerrymandered state house districts in the Richmond, Peninsula and Southside Hampton Roads areas.

Southern Coalition for Social Justice (SCSJ), Durham, NC (2018)

Developed a demonstrative remedial redistricting plan and associated expert report as well as provided a deposition for *North Carolina State Conference of NAACP Branches v. Lewis Wake County Superior Court* case. The demonstrative remedial plan corrected the two Wake county, NC House Districts declared by a federal court to be racially gerrymandered districts (HD33 & HD38). The expert report provided a narrative that not only discussed my results, but also provided insight for the Court on how a mapdrawer would reasonably go about fixing racially gerrymandered districts and still comply with the state constitution's prohibition on mid-decade redistricting.

Texas NAACP, San Antonio, TX, (2017)

Provided expert testimony, deposition and expert report for the *Perez v. Abbott* US Federal District Court Case. Analysis focused on certain characteristics, including population deviation, compactness, political subdivision splits and communities of interest for congressional and house plans. Additional analysis was performed on demographic projections for certain congressional and state house districts.

Southern Coalition for Social Justice (SCSJ), Durham, NC (2015 - 2016)

Provided expert testimony, deposition and expert report for the *City of Greensboro v The Guilford County Board of Elections* US District Court Case. Deposition and report included several district plans for the city council of Greensboro, NC, and analyzed certain characteristics, including population deviation, political subdivision splits, partisan performance, and incumbent effect analysis.

Provided expert testimony and report for the *Covington v North Carolina* federal redistricting court case. The testimony included analysis from *Dickson v Rucho* (also *NAACP v North Carolina*) of compactness on state legislative house and senate districts.

Provided expert testimony and report for the *Wright v North Carolina* federal redistricting court case. The testimony and report included analysis of population deviation, compactness, partisan impact and incumbent residences for county commission and school board plans.

Alabama Democratic Conference (ADC), Montgomery, AL (2015 - 2016)

Developed senate and house redistricting plans for the state of Alabama for the *ADC v Alabama* court case. Provided deposition on the creation of the plan. Also, generated a series of thematic maps depicting areas added from the previous plan to the enacted plan, displaying concentrations of African American voters that were added to the enacted plan.

Southern Coalition for Social Justice (SCSJ), Durham, NC (2014)

Provided expert testimony, report, and deposition for Federal redistricting court case, *Perez v. Perry* of Texas. The report included analysis of population extrapolations and projections for several submitted plans for select congressional and house districts.

North Carolina NAACP, Raleigh, NC (2012)

Provided expert opinions and analysis in an affidavit for the *NC NAACP v. State of North Carolina* federal redistricting case (later *Dickson v Rucho*). The affidavit included examination of compactness measurements pertaining to the Congressional, State Senate, and State House "Benchmark" plans, several approved plans, and several legislative submitted plans. The report also contained county splits for the target districts.

Southern Coalition for Social Justice (SCSJ), Durham, NC (2011)

Provided expert opinions and analysis in an affidavit for the *Moore v. State of Tennessee* redistricting case. The affidavit included analysis of county splits comparing State Senate "Benchmark" plans, the approved plan, and several legislative submitted plans.

Texas NAACP, San Antonio, TX (2011)

Provided expert testimony, report, and deposition for federal redistricting court case *Perez v. Perry*. Testimony covered the evaluation of traditional redistricting criteria of the Congressional and House approved plans compared to several proposed or legislature submitted plans.

Louisiana Legislative Black Caucus, Baton Rouge, LA (2011)

Provided expert testimony in front of the Senate and Governmental Affairs committee. Testimony included the analysis of two redistricting plans comparing ideal population deviation, political subdivision splits (Parishes); and compactness ratios. Also, developed a redistricting plan and testified in front of the House and Governmental Affairs in support of a new majority minority (African American) congressional district in Louisiana.

Morrison & Foerster LLP, Los Angeles, CA (2004)

Provided expert report on several state senate plans for the *Metts v. Murphy* Rhode Island court case. Report contained analysis of communities of interest areas that were not included in the state's enacted plan of the only majority minority district.

Congressional Black Caucus Institute, Redistricting Project, Washington D.C. (2002)

Performed as the redistricting mapping expert for Congressman Hilliard in a consolidated U.S. District redistricting court case in Alabama (*Montiel v. Davis and Barnett v. Alabama*). Developed the submitted plan and provided advice to legal counsel for the court case.

Council of Black Elected Democrats (COBED) New York State, New York, NY (2002)

Performed as one of the redistricting experts (*Allen v Pataki/Rodriguez v Pataki*) by developing several New York State congressional district plans that were presented by COBED.

Miami-Dade, Florida (1993)

Provided expert technical redistricting support as one half of the Expert Master's Team for the remedial plan (*Meek v. Metropolitan Dade County*). Developed over 50 commissioner district plans for the county as well as the final adopted plan for the county.

NAACP Legal Defense and Educational Fund (LDEF), New York, NY (1993)

Provided expert technical support for the *Shaw v. Reno* Supreme Court case (via Norfolk State University). Analyzed and compared various compactness ratios for congressional districts throughout the U.S. The results were compared to the 12th congressional district of North Carolina. Also, developed several alternative congressional district plans.

Major GIS/Demographic/Redistricting Training and Presentations:

William and Mary, Williamsburg, VA (2019)

Presented lecture to the GIS and Districting course students centering on improving as well as potential adverse trade-offs from improvements of the adopted redistricting plan chosen by the special masters of the *Bethune-Hill v. Virginia State Bd. of Elections* redistricting case.

Southern Echo, Jackson, Mississippi (2019)

Provided detailed training/presentation (3 hours) on various aspects of redistricting. Topics included: Relevant redistricting court cases, traditional redistricting criteria, and redistricting data.

William and Mary, Williamsburg, VA (2018)

Presented lecture to the GIS and Districting course students centering on aspects of the *Bethune-Hill v. Virginia State Bd. of Elections* redistricting case. Discussion pertained to how to develop a plan that corrected the 11 unconstitutional racial gerrymandered states house districts.

Congressional Black Caucus Institute, Washington, DC (2016)

Presented at the annual legislative conference in Tunica, MS. Presented the election demographic analysis and for the 2016 presidential and Senate elections. Panel included Congressman Cedrick Richmond (LA), Congressman Sanford Bishop (GA), and Professor Spencer Overton.

Coalition of Black Trade Unionists (CBTU), Chicago, IL (2015)

Presented at the annual CBTU conference on the election panel that included Congressman Al Green (TX) and Congressman Bobby Rush (IL).

Nobel Women's Initiative, Washington, DC (2015)

Presented on a panel at the annual conference in San Diego, CA on the upcoming 2020 census.

Tennessee NAACP, Nashville, TN (2011)

Provided redistricting training session on the mapping and demographic aspects of Redistricting.

Congressional Black Caucus Institute, Washington, DC (2002 - 2012, 2014)

Presented "The Demographics of Campaigns" twelve times at the institute's annual political campaign "Boot Camp." The presentation covers how to locate and utilize demographic data for political campaigns.

Congressional Black Caucus Foundation (CBCF), Washington, DC (2011)

Presented as one of the panelist at the "Judge A. Leon Higginbotham" Braintrust at the CBC Annual Legislative Conference. The panel was moderated by Congressman Mel Watt.

The Advancement Project, Washington, DC (2011)

Trained staff GIS person on Maptitude for Redistricting as well as on redistricting scenarios.

National Association for the Advancement of Colored People, Baltimore, MA (2011)

Provided training session on "Redistricting Mapping Overview" at the organization's national redistricting training seminar for state and local chapters.

Congressional Black Caucus Institute, Washington, DC (2010)

Presented at the annual CBC Institute conference in Tunica, MS (The panel included Congressman John Lewis and Congressman Jim Clyburn). Outlined two critical issues that would surface in the 2010 round of redistricting: 1) Prison-based Gerrymander; and 2) The Use of Citizen Voting Age Population (CVAP).

Community Census and Redistricting Institute (CCRI), Durham, NC (2010)

Developed, managed, and provided hands-on training for the Political Cartographer's side of a week-long intensive "redistricting expert" preparation workshop. The workshop trained 18 political cartographers on all aspects of plan development.

North Carolina University's Center for Civil Rights, Chapel Hill, NC (2010)

Provided presentation on "Redistricting Laws & GIS" at the *Unfinished Work* conference. The presentation outlined the evolution of major redistricting laws and GIS and their impact on minority representation.

NAACP Legal Defense Fund AIRLIE Conference, AIRLIE, VA (2010)

Provided training using hands-on "paper" redistricting scenario to voting rights advocates on developing a plan without the use of computers.

Young Elected Officials, Los Angeles, CA (2010)

Provided training using hands-on "paper" redistricting scenario to young legislators on developing a plan without the use of computers.

Young Elected Officials, Alexandria, VA (2010)

Provided overview training on the major aspects of redistricting to young legislators.

North Carolina University's Center for Civil Rights, Chapel Hill, NC (2006)

Provided presentation on "Congressional Elections Won by African Americans Race & Ethnicity District Perspective (1960 - 2004)" at the *Who Draws the Lines? The Consequences of Redistricting Reform for Minority Voters* conference.

Howard University - Continuing Education - HBCU GIS Workshop, Washington, DC (2002)

Provided presentation on redistricting and the use Maptitude for Redistricting to faculty members of Historically Black Colleges and Universities (HBCUs).

Norfolk State University Redistricting Project Training Workshops (1991 - 1998)

Provided redistricting training to the following:

- Alabama State University, Montgomery, Alabama
- Albany State University, Albany, Georgia
- Florida A & M, Tallahassee, Florida
- National Conference of Black Political Scientists, Atlanta, Georgia Conference
- Norfolk State University, Norfolk, Virginia
- North Carolina A & T State University, Greensboro, North Carolina
- North Carolina Central University, Durham, North Carolina
- Southern University, Baton Rouge, Louisiana
- Williams College, Williamstown, Massachusetts

Major GIS/Redistricting/Voter Data Software Experience:

- ArcGIS - GIS Software - Primary GIS Software after 2012 ([ESRI](#))
- ArcGIS Online – Including Story Maps & Web Application Builder ([ArcGIS.com](#))
- GRASS GIS – Open Source GIS ([OSGeo](#))
- Maptitude for Redistricting - Primary Redistricting software, since 2001 ([Caliper](#))
- ESRI Redistricting Online - Beta Tester ([ESRI](#))
- Public Mapping Project - Advisory Board Member ([an open source online software](#))
- GIS Plus (the precursor to Maptitude Software in the mid to late 1990s) - User ([Caliper](#))
- ReapS Redistricting and Reapportionment System - Redistricting software, 1990s ([LogiSYS](#))
- Voter Activation Network System [NPGVAN](#)
- Voterlistonline.com Aristotle software [Aristotle](#)
- VBASE voter database software

GIS Skillset/Coding Languages:

- | | |
|------------------------|------------------------|
| • Geocoding Data | • Image Classification |
| • Linear Referencing | • ArcGIS Web Services |
| • Digital Cardinality | • pdAdmin |
| • Spatial Statistics | • Python |
| • Suitability Analysis | • PostgreSQL |

ESRI Certificates:

- Learning ArcGIS Desktop (for ArcGIS 10) - 24 hrs training
- Turning Data into Information Using ArcGIS 10 - 18 hrs training
- Basics of Raster Data (for ArcGIS 10) - 3 hrs training
- Using Raster Data for Site Selection (for ArcGIS 10) - 3 hrs training
- Working with Geodatabase Domains and Subtypes in ArcGIS - 3 hrs training
- Network Analysis Using ArcGIS - 3 hrs training

Publications:

Books

- *An Introduction to the Presidential Trend*, Statistical Press, March 2015
- *The Presidential Trend*, Statistical Press, December 2013
- *The Democratic Trend Phenomenon*, MediaChannel LLC, October 2008.
- *A Step by Step Guide to Using Census 2000 Data*, MediaChannel LLC, March 2004. Also Included, a companion CD-ROM (sold through various Census related workshops and training sessions and used in a political science course).

Manuals

- *A Beginner's Guide To Using Census 2000 Data*, November 2002 (Co-authored- developed for the U.S. Census Bureau's Census Information Centers)

Articles

- "Precision Voter Targeting: GIS Maps Out a Strategy," *Geo Info Systems*, November 1996 (Co-authored one of the first articles published on using modern day GIS for voter targeting).

Current Advisory Boards

- Virginia Tech Electrical and Computer Engineering (ECE) [Advisory Board](#) (Term: 2016 to 2020)
- First Baptist Church of Hampton Trustee Board (Term: 2015 to 2019)

Everett Districting Commission,
District Master Interview Questions
Nov 4th and 18th 2019

Tony Fairfax, CensusChannel LLC Responses

1. Please introduce yourself and provide a brief overview of your background and familiarity with Everett.

My name is Anthony Fairfax; however, I usually go by my nickname of Tony. I am the CEO and Principal Consultant for CensusChannel LLC, a demographic and mapping consulting firm.

I began my career as an electrical engineer working for a manufacturing company and then a government engineering consulting firm. However, after working several years as an engineer, and following a brief stint at co-owning a computer training business in the late 1980s, I began to provide consulting services on my own. After consulting for a year or so, I obtained a contract at Norfolk State University working on their Redistricting Research Project as their GIS consultant which dramatically change the course of my career.

Hence, twenty-eight (28) years, three (3) redistricting cycles, a variety of clients, and nearly one thousand redistricting plans later brings me to this point in my life. During that period of time, I started my business (CensusChannel LLC 10 years ago), obtained my Master's in Geospatial Information Science and Technology (MGIST), and reached a level in my profession where I have developed expert reports, provided depositions, and testified in state and federal court as a redistricting expert witness.

I have a basic familiarity with Everett. I know that Everett is a midsize city with approximately 110,000 persons and is located about 25 miles north of Seattle, WA. I know that the city has voted on and approved a 5-2 districting plan scheme and the utilization of a District Commission to develop the plan.

2. Have you ever worked for a districting commission or like body? Please explain. If not, what background do you have that might be similar?

I have not worked for a districting commission. However, I have always developed a plan with the input from one or more persons. In some cases (e.g. the recent Bethune Hill Virginia court case's remedial plan for the NAACP), there could be suggestions from multiple or dozens of persons at meetings.

3. Please explain how you view the role of district master.

I view my role as District Master as an advisor and an implementer. I am an advisor to provide insight into the development of a legal and fair redistricting plan. And I am an implementer in the sense that I will use my technical skills and knowledge to accomplish the goals and objectives of the District Commission and the citizens of Everett, WA. It is important to note that I believe that the districting plan is not my plan, but the city's plan. I am just a conduit to ensure that the city achieves its objectives.

4. How would you keep open communication and the districting commission informed?

As I mentioned in the RFP response, I will respond to communications (via telephone or email) from the District Commission within one business day. Of course I understand certain situations, thus in emergencies, I will respond throughout the weekend and holidays as well. In addition, I will submit regular status on the development process of the plan.

5. What is the biggest problem that you would expect to face when creating a district map?

The biggest problem that I expect is that there will be no way to implement 100% of everyone's desires. Inevitably, there will be District Commissioners who will not be 100% satisfied and citizens that feel the same way. That said, the Districting Commission and citizens should be satisfied greater than a simple majority and more like a super majority.

6. What familiarity do you have working with shape files?

I have extensive experience working with shapefiles. I use shapefiles regularly in my normal work routine and my master's required the use of shapefiles extensively throughout many of the courses.

7. How do you plan to understand and ensure communities of mutual interest are not separated? What does the term "communities of mutual interest" mean to you?

First, communities of mutual interest or communities of interest, refers to a common interest or even concern shared by a voting group within defined geographic areas. One of the keys to communities of mutual interest lies with the geographic areas. In essence, if there is a mutual interest that is scattered throughout the city, there will be no way to ensure that this population group can be contained within a district. Thus, there has to be a way to defined the geographic areas as well as the mutual interest.

Understanding communities of mutual interest, is best achieved by querying local community organizations. These entities are in the best position to understand the interests of the communities that they represent. Finally, mutual interest could refer to almost anything that a particular community shares a concern or interest around (e.g. education, crime, poverty, race/ethnicity, language, geography, etc.).

8. There are two key tactics used in gerrymandering; Cracking and Packing. How would you prevent this from happening?

The way to prevent packing and cracking is to not unduly separate (crack) or excessively cluster (pack) a racial minority voting group (to include ethnic minorities) into one or more districts. This dilutes the population group's voting strength. Determining whether cracking or packing has occurred varies depending upon the jurisdiction's demographic makeup and geographic dispersion of the voting group (as well as considering turnout percentages, specifically for packing). When drawing plans in a jurisdiction with significantly populated racial groups (to include ethnic minorities), care must be given to not crack or pack the group and yet at the same time not have race predominate.

To prevent cracking from occurring, attention should be given to preserving whole neighborhoods or communities, regardless of their racial makeup. In addition, although race can not predominate plan development, there is nothing wrong with placing communities with similar commonalities (communities of interest) that happen to have similar racial makeup into the same district in a compact manner.

To avoid packing during any plan development, the use of minority percentage targets and splitting areas such as precincts (or VTDs) along racial lines should be eliminated. Second, including majority minority areas in a non-compact fashion should also be avoided. Third, viewing racial percentages of the districts, especially “near the end” of plan development, is a useful check to ensure that an excessive amount of minority voters have “not” been placed in a particular district. Once again, “excessive” depends upon the specific jurisdiction and specific minority voting group.

9. How would you suggest presenting the Districting Map to the people of our city?

The final map should be presented online as well as at a public meeting. That said, the public should be kept informed of prior draft versions of the map. I noticed that Everett has launched a new “open data portal” this year. This portal may be perfect for disseminating district maps and reports.

10. What assistance do you expect or need from City staff to support your work?

I expect that I need assistance from the city by providing shapefiles reflecting neighborhoods, communities, critical subdivision areas as well as precincts. If the District Commission desires to consider major landmark areas, such as malls, parks, etc., those shapefiles will be necessary. Also needed would be a shapefile or the addresses of the current incumbents. Finally, if staff can provide background insight into various communities and their commonalities (or lack thereof), that would be helpful as well.

11. Are you willing to attend community meetings once we have a draft map(s) ready for the community to provide input on?

Yes, I am willing to attend community meetings.