#### STATE OF MICHIGAN IN THE SUPREME COURT

DETROIT CAUCUS; ROMULUS CITY COUNCIL; INKSTER CITY COUNCIL; TENISHA YANCY, as a State Representative and individually; SHERRY GAY DAGNOGO, as a Former State Representative and individually: TYRONE CARTER, as a State Representative and individually; BETTY JEAN ALEXANDER, as a State Senator and individually, Hon. STEPHEN CHISHOLM, as member of Inkster City Council and individually, TEOLA P. HUNTER, as a Former State Representative and individually; Hon. KEITH WILLIAMS, as Chair MDP Black Caucus and individually; DR. CAROL WEAVER, as 14th Congressional District Executive Board Member and individually; WENDELL BYRD, as a Former State Representative and individually: SHANELLE JACKSON, as a Former State Representative and individually; LAMAR LEMMONS, as a Former State Representative and individually; IRMA CLARK COLEMAN, as a Former Senator & Wayne County Commissioner and individually; LAVONIA PERRYMAN, as representative of the Shirley Chisholm Metro Congress of Black Women and individually; ALISHA BELL, as Wayne County Commissioner and individually; NATALIE BIENAIME; OLIVER COLE; ANDREA THOMPSON; DARRYL WOODS; NORMA D. MCDANIEL, MELISSA D. MCDANIEL; CHITARA WARREN; JAMES RICHARDSON; and ELENA HERRADA,

MSC No. 163926

Original Jurisdiction Const 1963, art. 4, § 6(19).

Plaintiffs,

v.

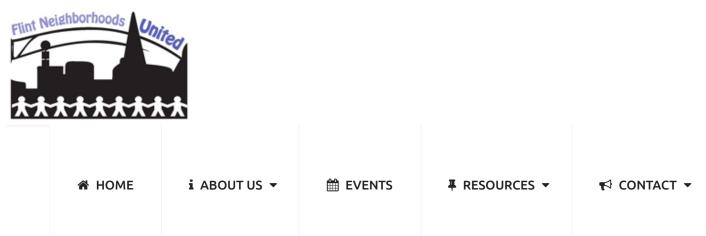
INDEPENDENT CITIZENS REDISTRICTING COMMISSION,

Defendant.

#### DEFENDANT INDEPENDENT CITIZENS REDISTRICTING COMMISSION'S APPENDIX

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#### **VOTERS NOT POLITICIANS**

🛗 November 29, 2017

Voters should choose their politicians, not the other way around.

On election day, we, the voters of Michigan, deserve to have our say. We expect our elections to be fair and transparent so that our votes matter and our voices are heard.

Politicians don't agree. They manipulate our voting maps to keep themselves in power. They draw voting maps that directly benefit themselves, instead of putting community interests and voter needs first. This allows politicians the power to choose their voters, instead of giving the voters the power to choose their politicians. This process gives us inattentive, ineffective, and unpopular representatives who keep getting re-elected over and over.

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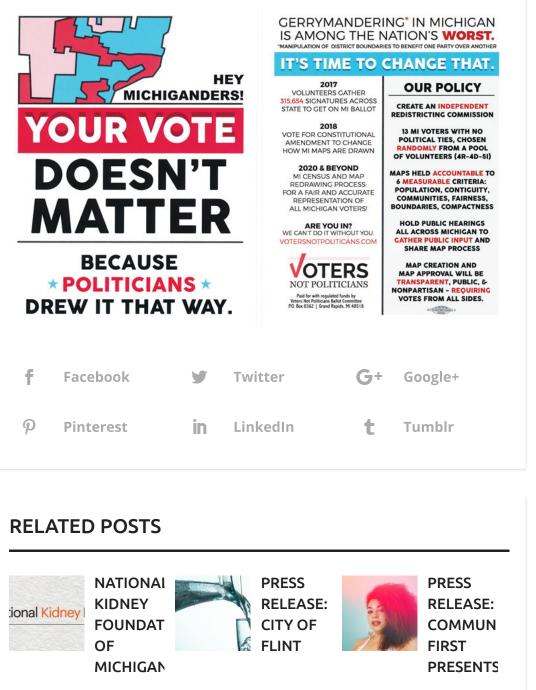
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https://www.flintneighborhoodsunited.org/voters-not-politicians/

Voters Not Politicians is a ballot question committee working to bring the power back to the people of Michigan through a citizen led ballot initiative. With the help of other grassroots organizations, Voters Not Politician's vision is to establish an Independent Citizen Redistricting Commission through a state constitutional amendment.

TAKE ACTION!

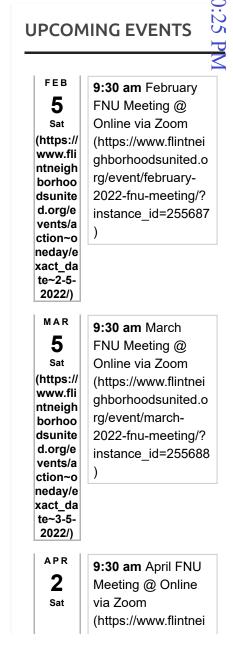
Visit the Voters Not Politicians website to learn more and volunteer.



Click here for the newspaper archives.

#### DISCLAIMER

Postings to this site do not necessarily reflect the opinion of Flint Neighborhoods United.





#### **Resolution 2021.02.09**

#### Michigan Independent Citizens Redistricting Commission Contracting the Line Drawing and Technical Services Firm

#### Presented: March 4, 2021

RESOLVED, that the Michigan Independent Citizens Redistricting Commission (MICRC), according to the Terms and Conditions set forth in RFP 920, 210000000714, extends the contract for Line Drawing and Technical Services to either Election Data Services or Haystaq DNA as the Commission's Line Drawing and Technical Services firm, contingent that should Election Data Services be selected, the services of Dr. Lisa Handley be included in the contract price as presented.

Attachment: Proposals from Election Data Services and Haystaq DNA

MOTION TO AMEND: NO

	Main	Amendment
Motion by Commissioner	Clark	
Second by Commissioner	Lange	

<b>RESULT: ROLL CALL VOTE WITH 8 COMMISSIONERS VOTING FOR</b>
ELECTION DATA SERVICES AND 5 COMMISSIONERS VOTING FOR
HAYSTAQ DNA.
See Attached for Roll Call Vote results.
A
March 4, 2021
Steven T. Lett, Chair



#### Resolution 2021.04.01 Michigan Independent Citizens Redistricting Commission

#### **Extend Contract for VRA Legal Counsel**

#### Presented: April 8, 2021

RESOLVED, that the Michigan Independent Citizens Redistricting Commission (MICRC) extends the contract for Voting Rights Act (VRA) Legal Counsel to Federal Compliance Consulting, LLC according to the Terms and Conditions set forth in RFP 920, 210000001155.

Attachment: *Proposal submitted by Fed Compliance Consulting, LLC* in response to RFP 920, 210000001155

#### MOTION TO AMEND: NO

	Main	Amendment
Motion by Commissioner	Lett	
Second by Commissioner	Witjes	

RESULT: <u>APPROVED UNANIMOUSLY</u> Roll Call Vote Attached

Brittni A. Kellom-Brittni Kellom, Chair

<u>April 8, 2021</u> Date

also know that what the issues are for each jurisdiction. And that they are well positioned when the data come out to just get going.

>> Rebecca: Thank you. What challenges do you foresee for individuals serving in the role of the RA counsel during the redistricting cycle?

>> Bruce: I think it's like anything, I think it depends on how expert, how informed the Council is. This is not something that is -- this is something that I learned in law school. It's not something that I learned when I started practices in Gennessee county. This is something the department of justice taught me and I have learn now through three redistricting cycles. I think being aware of the attention on redistricting, that people are very interested in it. And they are all kinds of different players who like to weigh in and I know certainly in Arizona. Whether they were elected officials or other people, people came up to us, people came up to me all the time, Bruce, you know, you are looking at this district and this line. Is there any way we can move the district from here to here?

So that's an issue that comes up regularly but as I said you know I understand the process. This is my third cycle. I've had the honor and benefit of working with the redistricting Commission in Arizona. Both as an enforcement attorney for the United States and also as an expert. And there is a consultant expert in litigation, so I understand what is involved, what the dynamics are. And then what the stresses can be.

>> Rebecca: Please describe your plan in the work product you will provide to the Commission.

>> Bruce: My plan which is the same really for all of my clients is in working with you if I'm fortunate enough to be retained about what are your priorities?

Let's talk about the big picture and the small picture. I know you have community meetings coming up.

And what will the focus be?

What are your priorities?

So the way I look at my role as an attorney is to in collaboration of course with you and act in accordance with your priorities and your preferences. So I mean, I think that that's when you talk about work product, the work product is really defined by not only the work that you request but also the types of analysis that we have to do. The if there are some big breaking Supreme Court decision or trial Court or appeals Court decision dealing with redistricting in your part of the country, then we are going to want to know about that.

So my work product is to provide the advice, counsel and analysis, work closely with you, staff, the mapping consultant, your general counsel in producing districting plan that is compliant and satisfies your criteria.

>> Rebecca: All right thank you. Please talk about a time when you had to communicate complicated legal terms whether VRA related or otherwise to public or

One of the highest risk factors especially youth to be put in that situation like you are. Notice all the time well, yeah, oh.

>> VICE CHAIR SZETELA: Thank you for addressing the Commission, Mr. Galant. I would like to remind everybody to please go to our public comment tool and share your comments in writing including any specific areas of the map with which you are speaking. The public comment tool is available at www.Michigan.gov/MICRC.

This concludes our public comment for this afternoon.

I would like to mention that in addition to the in person and remote public comment all e-mailed and mailed public comment provided to the Commission before each meeting and the Commissioners also review the public comment portal at www.Michigan.gov/MICRC on a regular basis.

We appreciate everybody who provides us with comment in whatever way they choose to do so. And we invite everyone to continue sharing their thoughts, comments and maps with us. Thank you very much.

I will pass it over to our Chair to continue with our agenda.

>> CHAIR KELLOM: Thank you so much, Vice Chair Szetela.

Commissioners, we and for those attending and listening, we are moving forward to new business, Item 6A racially polarized voting analysis with Dr. Lisa Handley along with VRA and state Constitution commentary from Mr. Bruce Adelson, Federal Compliance Consulting.

Without objection, I will ask Dr. Handley to begin.

Hearing none, Dr. Handley, please proceed and hello.

>> DR. LISA HANDLEY: It would be good if I started with the microphone. Hello again.

It's a pleasure to be here in Ann Arbor with the Commission.

I'm trying to figure out how to do this.

Okay, okay, can everybody see the screen and hear me? Have I figured out how to do this? Okay now have we got it. Okay.

>> MS. SARAH REINHARDT: While we are waiting, I wanted to note for the record that Commissioner Wagner has turned off her video, but she is still present. Thank you.

>> DR. LISA HANDLEY: It's a pleasure to be here again.

It looks like I've got everything running.

I'm going to start with a little refresher course about why I did the analysis and what -- before I get to what the results were.

Geez.

How do I go down? Okay, the Voting Rights Act is very important in this District drawing process.

I pulled up the redistricting criteria priority pyramid and you will see it's number two in the pyramid.

The first and Foremost criteria are the U.S. Constitution and Federal law and the Voting Rights Act is Federal law.

And it applies everywhere in the country including Michigan.

It prohibits any voting standard practice or procedure including a redistricting plan that results in the denial or dilution of minority voting strength.

A redistricting plan that dilutes minority voting strength is one that either cracks or packs a geographically concentrated minority group.

A top example to the left is or to the right is an example of a District, a set of districts that cracks the minority community by dividing it among four districts, five districts so that they cannot elect a minority preferred candidate in any of those districts.

The lower example on the right is an example of a District or District center that packs minority voters so that they have an impact on only one District and no impact on any of the other districts despite the fact that you could probably have drawn two districts in which they had the ability to elect communities, to elect candidates of choice.

When the Voting Rights Act was amended in 1982 to make it clear that you did not have to show that the redirectors intended to discriminate only that the plan that they drew actually resulted in discrimination.

The Supreme Court first considered this case in 1986 in a case called Thornburg versus Jingles and had to prove three conditions in order to satisfy Section Two and get a District drawn in which they could have the ability to elect a candidate of choice.

First is that the group must be sufficiently large and geographically compact to form a majority in a single member District.

This is in essence so there was actually a remedy available.

There is a solution to the problem of how do we elect candidates of choice.

The second is that the minority group must be politically cohesive.

That is, they must vote for the same candidates.

And, third, whites must vote as a bloc to usually defeat the minority-preferred candidates.

If they were not voting as a bloc to defeat these candidates, these candidates would win, and you wouldn't need to draw a minority District.

So how do we know how the minority group is voting? How do we know how whites are voting? What you do is conduct a racial bloc voting analysis.

And my job in this particular situation is to actually carry out what's called a racial bloc voting analysis that is analyze voting patterns by race to determine if voting is polarized. If whites are voting against a cohesive minority community.

I mentioned that first of all we have, of course, a secret ballot.

We don't know the race of the voters when they cast the ballot.

So, we have to use estimation techniques.

And the two most standard estimation techniques are ecological regression analysis and ecological inference analysis. Ecological simply means you are using aggregate data.

What we are going to do is we are going to look at precincts rather than individuals. And we are going to look to see if there are patterns across the precincts in which the demographic composition of the precinct is related to the voting patterns of those precincts.

So, on the left we see ecological regression each precinct in the jurisdiction has been placed on the scatter plot on the basis of the percent Black turnout this is the jurisdiction in the south where we actually know turn out by race.

And the vertical axis is vote for Warnock this is an election that occurred in January of 2021 it's the race for U.S. Senate in Georgia.

This is real data in a specific County.

You can see a pattern here and the pattern is the higher the percent Black across the precincts the more votes you see for Warnock that is the estimation technique we used to determine how whites and Blacks are voting in this particular jurisdiction.

This practice, this particular technique had one disadvantage associated with it and that voting was very polarized, you would get estimates that were outside the logical pounds and would find something like 105 Blacks vote 105% of Black voters voted for Warnock.

So, in the 1990s Professor King developed ecological inference, that you see on the right side. And this process, each precinct is actually represented by a line rather than a point using more information about the precinct to get this line. And that is all the possible combinations of Black and white votes that could have produced the result for that particular precinct as represented by a line as opposed to a point.

And then the computer generates a best guesstimate of what the actual composition of the votes for the Black candidate were, was.

So, this is the analysis that I performed in Michigan.

Now you need a few pieces of information in order to perform this.

And that is that you need to have an area that has a sufficient number of minority voters to actually estimate voting behavior by race.

I looked at eight counties.

There were several counties in the west of Michigan that had growing minority population around Grand Rapids, Muskegon County and Kent County and it turns out there was not a sufficient number of minority votes to estimate behavior voting behavior on the basis of race in those two counties.

The same is true of I looked at six counties in the east.

I was able to produce estimates for Wayne, Oakland, Genesee and Saginaw Counties, I was not able to do so for Washtenaw and Macomb Counties there was not a sufficient amount of Black turn out to estimate Black and white behavior in those two counties so

what I'm going to give you is the results of analysis for statewide for the entire State of Michigan and for these four counties.

Because actually what you want to do you want to do an area specific analysis because it turns out that voting patterns are different depending where you are in the state.

For example, it may be the case using the example I gave you before of the Georgia election.

Turns out that in the rule areas of Georgia the election was very polarized while in the urban area around Fulton it was much less polarized.

In fact, it wasn't polarized at all in certain areas.

So, it matters where you are in the state as to how much polarization there is and when you're drawing districts it matters what it looks like in that specific area.

The Court is quite adamant about doing a District-specific and am analysis and this is why I looked at these counties.

I looked at 13 elections there have been 13 statewide and Federal elections over the decade.

These include U.S. Senate, U.S. president, U.S. Senate, and three statewide contests, the gubernatorial contests the Attorney General and Secretary of State and the treasurer.

Four statewide contests.

Now the courts have indicated that the most probative contest to look at are contests include minority candidates.

So, you've had four contests statewide contests over the last decade that included minority candidates.

These are the most probative.

You have also listed them here.

You had the 2012 race for U.S. president.

You had a 2014 Secretary of State contest.

You had the 2018 and 2020 U.S. Senate contests.

Then you had two contests that included minority candidates as running mates.

This is the 2018 gubernatorial contest and the 2020 Presidential contest.

So, these I looked at all 13 statewide contests, but these are the most probative according to the courts.

Ordinarily I would look at statewide democratic primaries as well.

I could not look at republican primaries there is not enough minority participation in republican primaries to actually analyze voting patterns by race.

So, I look at democratic primaries.

And in this case, you've only had one statewide democratic primary.

This entire decade and that was in 2018 for Governor.

So, I looked at that contest as well.

This is what the results look like.

And I'm going to explain how to read this table.

Every election that I looked at for every area has a table that looks like this.

So, this is statewide.

This is the election listed here, 2018 Governor.

And here are the candidates.

Here are the parties of the candidates.

Here are the races of the candidates.

Here is the votes that they received statewide.

Now, there are actually four estimates for Black voters and there are four estimates for white voters.

I talked to you about ecological regression and mentioned the problem you have with ecological regression and there sit 104 of Black voters supporting Whitmer.

I didn't mention homogenous precinct.

This is actual these are the actual results of precincts across the state that are overwhelmingly one race.

So these are precincts across the state that are 90% or more voting age population Black in composition.

So that's how I derived the homogenous and this is actual data so looking at 90% plus precincts 90 per sent plus Black age population precincts 95.6% of those voters supported Whitmer.

There are actually two different forms of ecological inference analysis.

One is called two by two.

And that is the one that was developed in the 1990s.

It's since been refined so that I can account for differential turn out and that's what is in the last column 95.3%.

Now all of these are derived from different techniques.

You wouldn't expect them to be exactly the same, but they are all telling a very similar story and that is overwhelming Black support for Whitmer.

On the other side of this table, we will get our estimates.

I report the estimates for the white voters.

So let me see if I can get this to work.

But it's not doing this.

Okay, so we've got 41.1% in the overwhelmingly white precincts, 41.1% of the voters supported Whitmer.

The AR estimate is 38.9.

The two by two is 40.6.

And let me see and the C is 44.8% so these are estimates.

Now I forgot to mention down here the votes for office this is the percentage of voting age population that actually turned out and cast a ballot for that particular office.

So, you can see there is a difference in turn out rates.

And that is around 35% of Black voting age population turned out and cast a ballot for the Governor in 2018.

While the number was higher almost double for white voters.

This contest is racially polarized.

If Blacks voting alone had voted alone Whitmer would have been elected. She was.

And then of course if whites voted alone, it would have been the republican candidate who was elected.

Below I have the primary for this election.

I have the gubernatorial primary of 2018.

We have the three candidates listed here.

We have they are all democrats.

We have their race.

We have the percentage of votes they received.

And you will see that this contest is also polarized.

This contest you have a plurality of the Black voters supporting Thanedar and majority of the white voters supported Whitmer.

So, this contest is also polarized.

Okay, now I did this, and you will see tables in the report that I eventually produce for every election but I'm going to show you summaries of this in a little bit.

So, over all statewide in the 13 elections that I looked at, 12 were polarized. And those elections that are most probative to the courts, that is those that included minority candidates, 6 out of the 6 were polarized in the democratic primary which there was only one it was polarized.

And I money -- mentioned I looked at four counties and these are the results of the analysis in four counties in Genesee County we have nine of the 13 contests polarized with five of the six with minority candidates.

The democratic primary was polarized.

And Saginaw it's 11 out of 13 of the contests, six out of six of those contests with minority candidates.

And the democratic primary was polarized.

In Oakland all 13 of the general elections were polarized including the six with minority candidates but the democratic primary was not.

And finally in Wayne County where voting is less polarized you will see that 7 of the 13 contests were polarized, three of those were minority candidates and the democratic primary was polarized.

What this tells me is that voting is polarized in Michigan.

And what that means is the Voting Rights Act comes into may in districts that provide minority voters with the opportunity to elect their candidates must be drawn.

Okay, so voting is polarized.

You have to create districts if they can be created, but more importantly perhaps is that those districts that exist must be maintained.

It's important to continue to provide minority voters with the opportunity to elect their candidates of choice.

So, if districts can be drawn, they should be drawn.

If districts exist and minority candidates are winning only because the districts exist, those districts must be maintained.

Those districts must be maintained in a way that gives minorities an opportunity to elect their candidates of choice.

But you don't just choose an arbitrary target.

You don't just say 50% voting age population is what we need to maintain these minority districts.

And it is the Supreme Court that has told us this, and Bruce gets to talk about this later. But the fact is you have to do a District specific functional analysis in each area that you are to determine what an effective minority District looks like. No arbitrary percentages.

So how do we do a District-specific functional analysis? By functional we mean we have to look at actual voting behavior and look at election results.

By District specific I told you already we are going to look first at voting patterns not just statewide but District or broader areas like counties.

Now the first approach I'm going to discuss with you today, and that is taking the estimates of participation rates minority cohesion and white cross over from the RV B analysis I conducted and using that to calculate the percent minority population needed in a specific area for the minority preferred candidates to win a District in that area. But there's another approach that you can use that the Commissioners can use as they're drawing and that is to look at the election results of what I call bellwether elections to determine if that election had occurred within the proposed boundaries of the districts that you're creating if those minority preferred candidates would have carried those districts.

There are four bellwether contests in particular that you are going to focus on. You will recall I said six contests include minority candidates and two of those contests the minority candidate was not the candidate preferred by minority voters.

That was in 2018 Senate and the 2020 Senate.

That was the republican John James.

So, the four bellwether contests you will be focusing on to determine if the districts you have drawn will allow minorities to elect candidates of choice will be the other four contests the 2012 presidents contest for president, the 2014 contest for treasurer, the 2018 gubernatorial contest and the 2020 Presidential contest.

And you can recompile election results and determine if the minority preferred candidates would carry the districts.

Now, I'm going to back and spend the rest of the time talking about the first approach. So, this table above takes what I mentioned, that is the participation rates, the degree of minority cohesion and the degree of white cross over vote for the minority preferred candidate.

And tells you how that majority preferred candidate would do in each of these in a 55% District, 50, 45, 40 and 35% Black voting age population District.

This is how this works.

This is Algebra.

Took me about a day to work out the formula and how to do it in excel but it's actually just Algebra.

What I did here is I'm going to you will remember this chart from earlier.

I'm going to take the participation rate and I'm going to use in this instance the best estimate, and that is the EI estimate that takes into account differential turn out.

So, I'm going to take 35.2% and it's going to go into this column.

That is votes cast for office.

This keeps disappearing.

This is the percentage of votes by Black voters for the minority preferred candidate. I got that from this table.

This is the numbers, this is just 100 minus 95.3%.

This is the votes cast, votes cast by office by whites, and you will see that is up here.

Then percentage of votes for Whitmer here.

Numbers directed here.

And then a lot of Algebra to tell me what this candidate would have gotten in a District that was 55 percent.

Whitmer would have gotten 65.2 percent of the vote.

In a District that was 50% she would have gotten 62.8% of the vote.

In a District that was 45% she would have gotten 60.6.

And in a District that was 40% she would have gotten 58.5.

And in a District that was 35% she would have gotten 56.4%.

This is an important piece of information.

I want you to notice that when I go down, say the 40% Black voting age population column, the Black preferred candidate wins every contest.

This tells me that statewide it's quite possible that you do not need a majority-minority District to elect a minority preferred candidate.

Now these numbers are statewide and it's more important that we look at each County individually because as I mentioned earlier, it may be the case that numbers change depending on where you are.

So here is Saginaw County.

Same thing that the numbers come from the same place, from the racial bloc voting analysis.

Here in Saginaw County well we are not going to go down to 35% because the minority preferred candidate does not win some of these contests.

So, this is a little bit different than statewide.

Saginaw County the District is probably going to have to have a higher Black voting age population than it would be the case statewide and then it will be the case you will see in other counties.

Here is Genesee County.

Voting is a little less polarized.

We are getting more white cross over vote.

Here are the votes what we call white cross over votes is white vote for the minority preferred candidate.

And we are getting more and this is why 35% District looks like it would be effective in Genesee County.

In Oakland County, 35% is going to work.

40 percent looks like it might work.

In Wayne County where we have a lot more white crossover vote 35% might well work. I'm not advocating that you draw the districts at this amount.

I'm advocating that you keep in mind that the districts do not have to be

majority-minority in composition and then you turn to the recompiled election results for what you have in any given District because it matters not only how much the area that you're drawing how high the Black participation rates are, but how much white cross over voting you might get.

So, you're going to look at each individual District as you draw it looking at the bellwether elections to make certain that the minority preferred candidates would win.

Now, I recognize that you might be surprised that despite what is a very polarized state that a District that is not majority-minority may be all that is necessary to provide minorities with an opportunity to elect their candidates of choice.

But what I want to show you now is what are called the threshold of representation. In the Senate there are no districts between 36 and 45%.

But every District over 48% elects a Black candidate to office and because I've done a racial bloc voting analysis on the general elections for the Senate, I can tell you these are all minority preferred candidates.

You can see that 67% of the districts over 35% elect Black preferred, Black candidates to office.

The difference is even more striking in the threshold of representation in the State House.

Every District over 35 over 36% Black and voting age population elects minority candidates to office.

And, in fact, 89% of those over 25% Black elect minority candidates to office. And again, there are no House Districts between 37 and 48% Black.

Even though many of those would have been effective districts.

This last slide before I turn it over to Bruce is a maps of the State House and the State Senate districts because I wondered why there weren't any 35-45% Black districts and what the shapes of the districts were that were electing Blacks to office.

And I will tell you that there are some, let's see if I can go back, there are some very hacked Black districts.

We have some districts that I could not produce estimates of white voting behavior because there were virtually no whites voting in these districts.

We have State House Districts that are well -- we have three of them that are well over 90%.

And the Black preferred candidates are getting well over 90% of the vote. Those are packed.

Doesn't like me going back.

Okay.

And those are not necessarily shaped districts.

It was not like they were creating districts that were nice little compact districts.

>> CHAIR KELLOM: Doctor Handley we have a question from Commissioner Lange. >> DR. LISA HANDLEY: Yes.

>> COMMISSIONER LANGE: Dr. Handley I'm sorry to interrupt your presentation. I just have a quick question.

When doing the racial bloc voting, is it only based off from African/American votes or is it based off from any other ethnicities?

>> DR. LISA HANDLEY: That is a good question, and I should have said that earlier on now and many jurisdictions of course you would look at other ethnicities and I would have liked to have done so in Michigan.

But it turns out there are no counties with the sufficient number of Hispanics or Asian Americans or Native Americans to do the analysis.

But, yes, typically you could and should do the analysis if there was a sufficient number of minorities to do the analysis.

>> CHAIR KELLOM: Commissioner Lange does that satisfy your question?

>> COMMISSIONER LANGE: Yes, thank you very much.

>> CHAIR KELLOM: Dr. Handley you have another question from Commissioner Rothhorn?

>> COMMISSIONER ROTHHORN: Dr. Handley I'm thinking about the census data and how we have a significant population of Arab Americans in Dearborn so following up on what Dr. Or excuse me what Commissioner Lange was saying do we have any or is there any way to understand the Arab American or the Mena vote in this analysis?

>> DR. LISA HANDLEY: There is not because we don't have the composition of the precincts.

30:25 PM

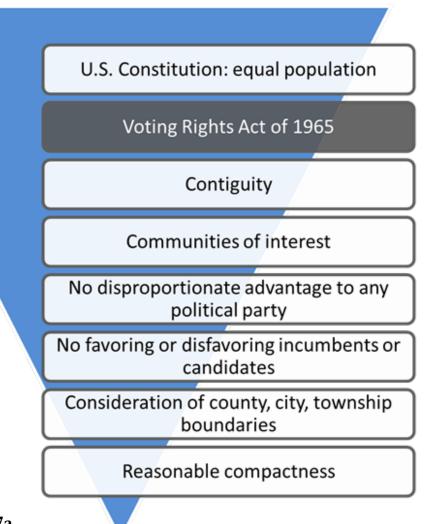
## DETERMINING IF A REDISTRICTING PLAN COMPLIES WITH THE VOTING RIGHTS ACT

Dr. Lisa Handley

Def. App. 016a

### Redistricting Criteria Priority Pyramid: Voting Rights Act of 1965

- Section 2 prohibits any voting standard, practice or procedure, including a redistricting plan, that results in the denial or dilution of minority voting strength.
- All state and local jurisdictions are covered by Section 2 of the Voting Rights Act.

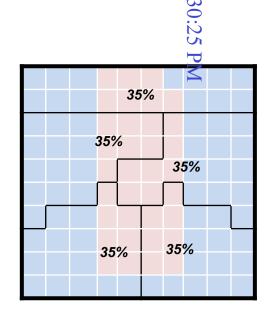


### Redistricting Plans that Violate the Voting Rights Act

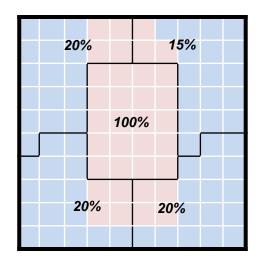
Redistricting plans cannot:

- crack, or
- pack

a geographically concentrated minority community across districts or within a district in a manner that dilutes their voting strength.



Plan that cracks minority community across 5 districts



Plan that packs minority community into single district

## Thornburg v. Gingles: Three-Pronged Test

U.S. Supreme Court held that plaintiffs must satisfy three preconditions to qualify for relief under Section 2 of the Voting Rights Act:

- The minority group must be sufficiently large and geographically compact to form a majority in a single-member district
- The minority group must be politically cohesive
- Whites must vote as a bloc to usually defeat the minority-preferred candidates

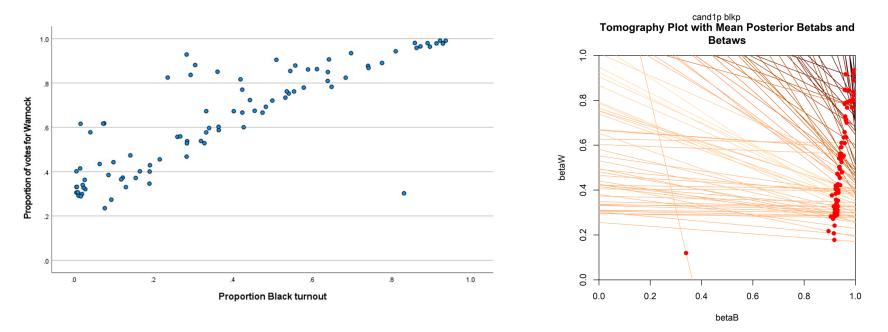
A racial bloc voting analysis is used to ascertain whether minority voters are politically cohesive and if white voters bloc vote to usually defeat minority-preferred candidates.

### Analyzing Voting Behavior by Race

Two standard statistical techniques for estimating voting patterns of minority and white voters:

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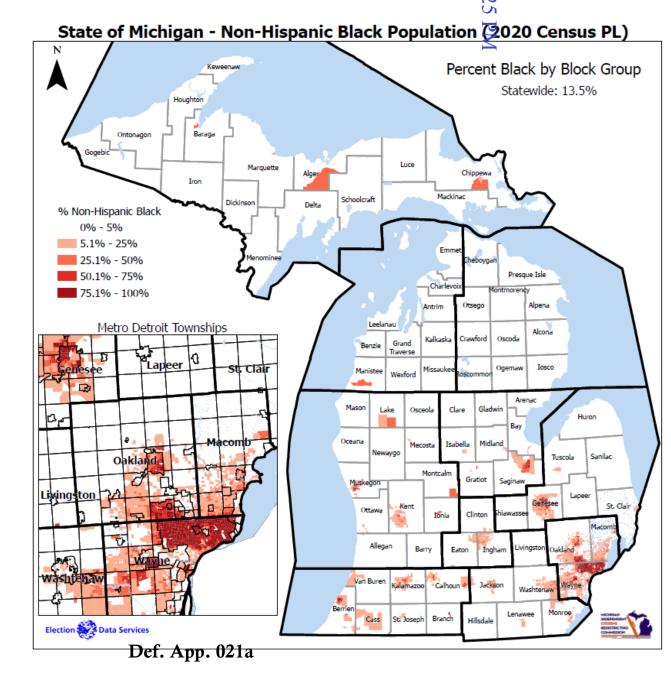
- Ecological regression analysis (ER)
- Ecological inference analysis (EI)



Def. App. 020a

### Area-Specific Analyses

- Wayne
- Oakland
- Genesee
- Saginaw



30:

### **Elections Analyzed to Date**

- All federal and statewide general election contests, 2012-2020.
  - **□** Four election contests included minority candidates:
    - > 2012 U.S. President (Barack Obama)
    - > 2014 Secretary of State (Godfrey Dillard)
    - > 2018 U.S. Senate (John James)
    - > 2020 U.S. Senate (John James)
  - Two contests included minority candidates as running mates
    - > 2018 Governor (Gretchen Whitmer/Garlin Gilchrist)
    - > 2020 U.S. President (Joseph Biden/Kamala Harris)
- Only Democratic primary for statewide office this past decade: 2018 race for governor

Def. App. 022a

# Example of RBV Results: 2018 General and Democratic Primary for Governor

Statev	wide			E	stimates for	Black Voter	S	Es	Estimates for White Voters HP ER EI 2x2 EI RxC			
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP				
2018 General												
Governor												
Whitmer/Gilchrist	D	W/AA	53.3%	95.6	104.3	98.6	95.3	41.1	38.9	40.6	44.8	
Schuette/Lyons	R	W	43.8%	2.5	-6.4	0.6	1.8	56.0	57.9	56.2	52.8	
others				1.9	2.1	2.6	2.9	2.9	3.2	2.9	2.5	
votes for office				36.6	31.6	35.2	35.2	61.9	61.7	63.3	63.3	

2018 Democratic Prim	ary for G	overno	or	E	stimates for	Black Voter	s	Es	25.7 27.1 30.2 28		
	Party	Race	Vote	HP	ER	EI 2x2	EI RxC	HP	ER	El 2x2	EI RxC
STATEWIDE											
Abdul El-Sayed	D	ME	30.2%	21.0	24.2	23.5	26.0	25.7	27.1	30.2	28.5
Shri Thanedar	D	А	17.7%	42.5	44.2	42.2	39.0	15.8	12.9	10.8	9.4
Gretchen Whitmer	D	W	52.0%	36.5	31.6	33.5	35.0	58.6	60.0	59.4	62.0
votes for office				23.0	22.5	24.5	24.5	13.9	12.0	14.0	14.0

- votes for office = percentage of voting age population who turned out and cast a vote for the office
- **HP** = vote percentages from homogeneous precincts
- **ER** = estimates derived from ecological regression analysis
- El 2x2 = estimates derived from standard El (as developed by Prof. Gary King)
- **EI RxC** = estimates derived from EI technique that takes into account differences in participation by race

Def. App. 023a

## Number of Racially Polarized Election

	General Elections with Minority Candidates	All Statewide General Election Contests	Statewide Democratic Primary
Statewide	6/6	12/13	1/1
Genesee	5/6	9/13	1/1
Saginaw	6/6	11/13	1/1
Oakland	6/6	13/13	0/1
Wayne	3/6	7/13	1/1

Number of polarized contests plate total number of contests

# Complying with the Voting Rights Act

- If, based on the racial bloc voting (RBV) analysis, it is determined voting is racially polarized, and candidates preferred by a politically cohesive minority group are usually defeated by white voters not supporting these candidates, a district(s) that offers minority voters an opportunity to elect their candidates of choice must be drawn.
- If such districts already exist, and minority-preferred candidates are winning only because these districts exist, then these minority districts must be maintained in a manner that continues to provide minority voters with an opportunity to elect their preferred candidates.

## Drawing Minority Opportunity Distriets

- Line drawers cannot simply set an arbitrary demographic target (e.g., 50% black voting age population) for all minority districts across the jurisdiction (*Alabama Legislative Black Caucus v. Alabama*, 2015).
- A district-specific, functional analysis is required to determine if a proposed district will provide minority voters with the ability to elect minoritypreferred candidates to office.

## District-specific, Function Approaches

- Estimates of participation rates, minority cohesion and white crossover voting for minority-preferred candidates derived from the RBV analysis can be used to calculate the percent minority population needed in a specific area for minority-preferred candidates to win a district in that area.
- Election results from previous contests that included minority-preferred candidates ("bellwether elections" as identified by the RBV analysis) can be recompiled to reflect the boundaries of the proposed district to determine if minority-preferred candidates would consistently carry this proposed district.

										30:2			
							<u> </u>			25 P			
		turnout r	ate for off	ice and pe	ercent vote		•	percent of	percent of	percent 🚮	percent of	percent of	
	a)					C	andidates	ndidates vote B-P vot					
Michigan STATEWIDE	candidate							cand would	cand would	cand would	cand would	cand would	
Percent Black VAP	andi		Bl	ack votes		W	hite votes	have	have	have	have	have	
needed to win								received if	received if			received if	
	of B-P	votes			votes			district was	district was			district was	
	race o	cast for			cast for			55% black	50% black			35% black	
	ra(	office	B-P	all others	office	B-P	all others	VAP	VAP	VAP	VAP	VAP	
GENERAL ELECTIONS													
2020 President	W	55.2	96.2	3.8	79.0	40.0	60.0	65.9	63.1	60.4	57.9	55.4	
2020 US Senate	W	55.0	93.9	6.1	78.1	39.4	60.6	64.6	61.9	59.3	56.8	54.4	
2018 Governor	W	35.2	95.3	4.7	63.3	44.8	55.2	65.2	62.8	60.6	58.5	56.4	
2018 Secretary of State	W	35.1	95.6	4.4	62.2	43.9		65.0	62.6	60.2	58.0	55.9	
2018 Attorney General		34.6	94.4	5.6	61.7	39.4		61.8	59.2	56.7	54.4	52.2	
2018 US Senate	W	35.0	94.3	5.7	63.1	43.7		64.1	61.8	59.5		55.3	
2016 President	W	54.1	97.3	2.7	67.2	34.3		65.5	62.4	59.3	56.3	53.4	
2014 Governor	W	35.1	95.7	4.3	49.1	38.5		65.2	62.3	59.6		54.4	
2014 Secretary of State	AA	34.8	95.8	4.2	47.8	33.5		62.8	59.7	56.8	53.9	51.0	
2014 Attorney General		34.6	95.2	4.8	47.8	35.0		63.3	60.3	57.4	54.6	51.9	
2014 US Senate	W	35.0	96.5	3.5	48.5	47.3		70.4	67.9	65.6	63.3		
2012 President	AA	59.1	97.8	2.2	68.1	44.5		71.9	69.3				
2012 US Senate	W	58.8	96.8	3.2	66.9	50.6	49.4	74.5	72.2	69.9	67.7	65.4	

Statew	vide			E	stimates for	r Black Voter	'S	Es	timates for	White Vote	rs
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	ER	El 2x2	EI RxC
2018 General											
Governor											
Whitmer/Gilchrist	D	W/AA	53.3%	95.6	104.3	98.6	95.3	41.1	38.9	40.6	44.8
Schuette/Lyons	R	W	43.8%	2.5	-6.4	0.6	1.8	56.0	57.9	56.2	52.8
others				De	f. Ann <sup>1</sup>	028a <sup>2.6</sup>	2.9	2.9	3.2	2.9	2.5
votes for office				36.6	31.6	028a <sup>2.6</sup> 35.2	35.2	61.9	61.7	63.3	63.3

		turnout r	ate for off	ice and pe	ercent vote		-preferred andidates	percent of vote B-P	percent of vote B-P	percent of vote B-P	percent of vote B-P	percent of vote B-P
SAGINAW COUNTY Percent Black VAP needed to win	candidate	Black votes				W	hite votes	cand would have	cand would have	have have	e have ha	
needed to win	race of B-P	votes cast for office	B-P	all others	votes cast for office	B-P	all others	received if district was 55% black VAP	district was		received if district was 40% black VAP	received if district was 35% black VAP
GENERAL ELECTIONS												
2020 President	W	48.6	95.3	4.7	79.6	36.3	63.7	61.5	58.7	56.0	53.4	50.9
2020 US Senate	W	48.4	93.8	6.2	78.7	37.5	62.5	61.7	58.9	56.3	53.9	51.5
2018 Governor	W	37.7	93.6	6.4	63.0	40.9	59.1	63.2	60.6	58.2	55.9	53.7
2018 Secretary of State	W	38.0	93.7	6.3	61.4	39.2	60.8	62.7	60.0	57.5	55.1	52.8
2018 Attorney General	W	37.6	93.4	6.6	61.0	33.3	66.7	59.1	56.2	53.4	50.8	48.3
2018 US Senate	W	37.8	93.5	6.5	62.8	39.3	60.7	62.3	59.7	57.2	54.8	52.6
2016 President	W	52.3	95.0	5.0	70.2	30.6	69.4	61.3	58.1	55.0	52.0	49.0
2014 Governor	W	32.7	94.1	5.9	50.8	42.2	57.8	65.1	62.5	60.1	57.8	55.6
2014 Secretary of State	AA	32.6	94.4	5.6	49.2	36.3	63.7	62.3	59.5	56.7	54.1	51.6
2014 Attorney General	W	32.4	94.1	5.9	50.1	32.6	67.4	59.8	56.8	53.9	51.1	48.5
2014 US Senate	W	32.7	94.1	5.9	50.1	50.6	49.4	69.9	67.8	65.7	63.8	61.9
2012 President	AA	56.2	95.7	4.3	70.3	42.9	57.1	69.0	66.4	63.8	61.3	58.8
2012 US Senate	W	55.7	95.4	4.6	68.7	52.3	47.7	73.8	71.6	69.5	67.4	65.4

		turnout r	ate for of	ice and pe	ercent vote		-preferred andidates	percent of vote B-P	•	percent of vote B-P	percent of vote B-P	percent of vote B-P
GENESEE COUNTY Percent Black VAP needed to win	candidate	Black votes				W	hite votes	cand would have	cand would have	have	cand would have	cand would have
needed to win	race of B-P	votes cast for office	B-P	all others	votes cast for office	B-P	all others	received if district was 55% black VAP		district was	received if district was 40% black VAP	received if district was 35% black VAP
GENERAL ELECTIONS												
2020 President	W	53.0	96.1	3.9	79.6	42.1	57.9	66.3	63.7	61.1	58.7	56.4
2020 US Senate	W	56.6	95.0	5.0	78.7	43.5	56.5	67.6	65.0	62.6	60.2	57.9
2018 Governor	W	45.1	95.3	4.7	59.8	46.2	53.8	69.8	67.3	64.9	62.6	60.4
2018 Secretary of State	W	44.9	95.2	4.8	58.6	48.0	52.0	70.8	68.5	66.2	64.0	61.8
2018 Attorney General	W	44.6	94.1	5.9	58.4	41.1	58.9	66.7	64.0	61.5	59.0	56.5
2018 US Senate	W	45.1	95.2	4.8	59.6	45.8	54.2	69.5	67.1	64.7	62.4	60.1
2016 President	W	59.0	96.4	3.6	67.3	37.4	62.6	67.9	65.0	62.0	59.2	56.3
2014 Governor	W	35.8	95.8	4.2	47.5	51.8	48.2	72.9	70.7	68.6	66.5	64.5
2014 Secretary of State	AA	35.9	95.6	4.4	46.1	46.2	53.8	70.3	67.8	65.4	63.1	60.8
2014 Attorney General	W	35.9	95.6	4.4	45.5	45.2	54.8	69.9	67.4	65.0	62.6	60.2
2014 US Senate	W	36.1	95.6	4.4	47.1	58.6	41.4	76.5	74.7	72.9	71.1	69.4
2012 President	AA	61.0	97.6	2.4	68.4	53.7	46.3	76.6	74.4	72.2	70.1	67.9
2012 US Senate	W	60.7	96.7	3.3	67.5	60.2	39.8	79.3	77.5	75.7	73.9	72.1

		turnout r	ate for of	fice and pe	ercent vote		-preferred andidates	percent of vote B-P		•	percent of vote B-P	percent of vote B-P
OAKLAND COUNTY Percent Black VAP needed to win	candidate	Black votes				W	hite votes	cand would have	have	have	cand would have	cand would have
	race of B-P	votes cast for office	B-P	all others	votes cast for office	B-P	all others	received if district was 55% black VAP		district was	received if district was 40% black VAP	received if district was 35% black VAP
GENERAL ELECTIONS												
2020 President	W	71.6	93.4	6.6	86.4	45.9	54.1	69.8	67.4	65.1	62.8	60.6
2020 US Senate	W	71.4	92.1	7.9	85.4	43.5	56.5	68.1	65.6	63.2	60.9	58.6
2018 Governor	W	53.2	94.1	5.9	68.8	47.4	52.6	70.1	67.8	65.5	63.3	61.1
2018 Secretary of State	W	53.1	94.2	5.8	67.7	47.5	52.5	70.4	68.0	65.8	63.5	61.4
2018 Attorney General	W	52.5	93.8	6.2	67.0	43.0	57.0	67.9	65.3	62.8	60.4	58.1
2018 US Senate	W	53.2	93.0	7.0	68.7	45.5	54.5	68.6	66.2	63.9	61.7	59.5
2016 President	W	65.6	95.1	4.9	73.5	39.1	60.9	68.3	65.5	62.7	60.0	57.3
2014 Governor	W	46.3	94.8	5.2	54.6	30.6	69.4	63.3	60.1	56.9	53.8	50.7
2014 Secretary of State	AA	45.9	94.6	5.4	53.1	26.4	73.6	61.4	58.0	54.7	51.3	48.1
2014 Attorney General	W	45.8	94.1	5.9	52.6	32.9	67.1	64.5	61.4	58.4	55.4	52.4
2014 US Senate	W	46.5	95.0	5.0	53.7	46.7	53.3	71.5	69.1	66.7	64.4	62.1
2012 President	AA	68.9	95.7	4.3	75.7	42.1	57.9	70.3	67.6	65.0	62.3	59.7
2012 US Senate	W	67.8	95.8	4.2	74.0	47.6	52.4	73.1	70.6	68.3	65.9	63.5

WAYNE COUNTY Percent Black VAP needed to win	andic	turnout rate for office and percent vote for black-preferred candidates						•	•	percent of vote B-P		
		Black votes			White votes			cand would have	have	have	cand would have	cand would have
		votes cast for office	B-P	all others	votes cast for office	B-P	all others	received if district was 55% black VAP		district was	received if district was 40% black VAP	received if district was 35% black VAP
GENERAL ELECTIONS												
2020 President	W	58.0	97.5	2.5	76.6	47.5	52.5	71.5	69.0	66.6	64.3	62.0
2020 US Senate	W	57.8	95.2	4.8	75.6	47.2	52.8	70.4	68.0	65.7	63.4	61.2
2018 Governor	W	33.2	97.0	3.0	63.2	53.5	46.5	70.5	68.5	66.6	64.8	63.1
2018 Secretary of State	W	33.1	97.0	3.0	62.2	53.6	46.4	70.7	68.7	66.8	65.0	63.3
2018 Attorney General	W	32.7	95.5	4.5	61.3	49.4	50.6	67.6	65.4	63.4	61.5	59.7
2018 US Senate	W	33.1	95.8	4.2	63.1	52.3	47.7	69.3	67.3	65.4	63.6	61.9
2016 President	W	57.0	98.4	1.6	64.0	39.7	60.3	70.3	67.4	64.4	61.6	58.7
2014 Governor	W	35.8	96.5	3.5	47.7	41.3	58.7	67.7	65.0	62.3	59.7	57.2
2014 Secretary of State	AA	35.5	96.8	3.2	46.1	36.8	63.2	65.9	62.9	60.0	57.2	54.4
2014 Attorney General		35.3	95.7	4.3		41.0	59.0	67.5	64.8	62.1	59.5	57.0
2014 US Senate	W	35.7	98.0	2.0	46.8	53.4	46.6	74.9	72.7	70.5	68.4	66.4
2012 President	AA	60.4	99.0	1.0	65.7	51.9	48.1	76.8	74.5	72.1	69.8	67.5
2012 US Senate	W	59.9	98.1	1.9	64.4	57.6	42.4	79.1	77.1	75.1	73.1	71.1

State Senate District	Total VAP	Black VAP	Percent Black VAP	Name	north	r200	Percent of vote 2018
					party		77.4
5	203828	111418 86961	54.66% 51.35%	Betty Jean Alexander	D D	Black Black	77.4
2	169357			Adam Hollier	_		-
3	186758	90737		Sylvia Santana	D	Black	81.8
4	180199	85691		Marshall Bullock	D	White Asian	78.3 72.0
11	193087 229870	87075	45.10% 35.82%	Stephanie Chang	D	White	72.0
27	175918	82336 54071		Jeremy Moss Jim Ananich	D	White	76.7
9	219325	50800		Paul Wojno	D	White	65.9
9	219323	46997		Erika Geiss	D	Black	61.4
12	217734	32206	15.22%	Rosemary Bayer	D	White	49.4
12	243159	36228		Jeff Irwin	D	White	76.6
23	243133	30579	14.90%	Curtis Hertel Jr.	D	White	68.5
32	202924	28006	13.80%	Ken Horn	R	White	55.5
29	225476	30876	13.69%	Winnie Brinks	D	White	56.9
20	204328	24631	12.05%	Sean McCann	D	White	53.1
34	195673	19534	9.98%	Jon Bumstead	R	White	50.7
21	207567	20185	9.72%	Kim LaSata	R	White	58.1
10	232106	19162	8.26%	Michael Macdonald	R	White	51.0
7	225553	17825	7.90%	Dayna Polehanki	D	White	50.6
19	204186	15725	7.70%	John Bizon	R	White	58.6
15	226099	16436	7.27%	Jim Runestad	R	White	51.7
8	227952	15653	6.87%	Peter J. Lucido	R	White	61.8
26	212280	14313	6.74%	Aric Nesbitt	R	White	56.7
16	195953	12509	6.38%	Mike Shirkey	R	White	62.7
14	201692	11250	5.58%	Ruth Johnson	R	White	55.7
28	214199	10152	4.74%	Peter Macgregor	R	White	58.4
24	213683	8997	4.21%	Tom Barrett	R	White	53.5
13	229773	9353	4.07%	Mallory Mcmorrow	D	White	51.9
33	193451	7781	4.02%	Rick Outman	R	White	58.8
17	200526	6436	3.21%	Dale W. Zorn	R	White	57.9
30	226068	5258	2.33%	Roger Victory	R	White	63.3
25	206658	4409	2.13%	Dan Lauwers	R	White	64.0
37	209210	4076	1.95%	Wayne Schmidt	R	White	59.0
31	195335	3241	1.66%	Kevin Daley	R	White	60.2
38	202739	3086	1.52%	Ed McBroom	R	White	54.6
22	213082	2912	1.37%	Lana Theis	R	White	56.0
35	204742	2729	1.33%	Curt VanderWall	R	White White	App <sub>64.3</sub>
36	196947	1872	0.95%	Jim Stamas	R	White	PH64.3

Threshole of Representation: State Senate

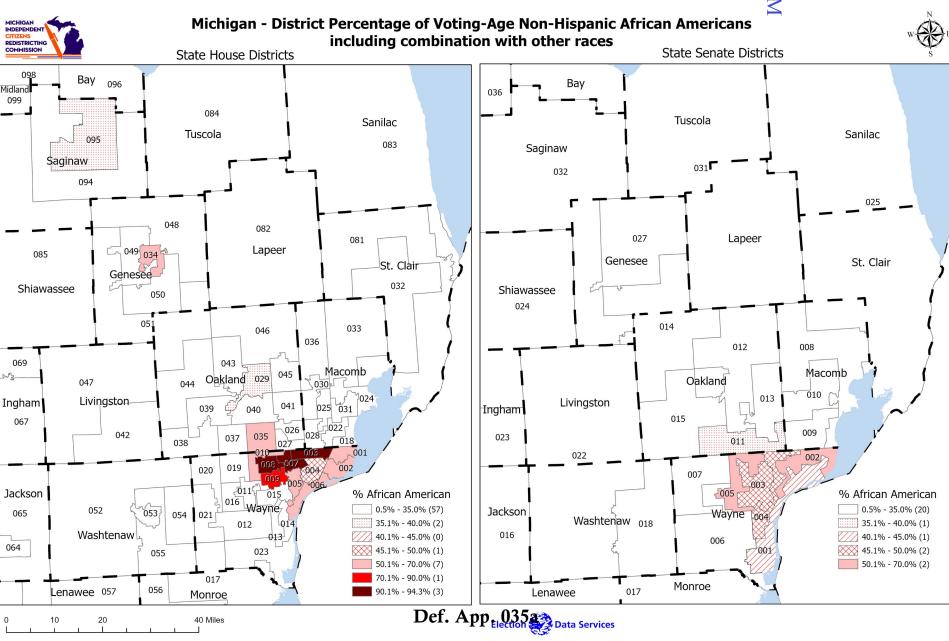
- All districts over 48%
   Black elect minority
   candidates
- 67% of districts over 35%
   Black elect minority
   candidates
- No state senate districts between 36 and 45% Black

State House District	Total VAP	Black VAP	Percent Black VAP	Name	Party	Race	Percent of Vote 2020
7	60347	57256	94.88%	Helena Scott	D	Black	93.0
8	62448	58042	92.94%	Stephanie A. Young	D	Black	96.7
3	54130	49536	91.51%	Shri Thanedar	D	Asian	93.3
9	62529	46806	74.85%	Karen Whitsett	D	Black	94.2
10	69209	46977	67.88%	Mary Cavanagh	D	Hispanic	84.8
1	59788	38993	65.22%	Tenisha R. Yancey	D	Black	75.8
35	78306	49325	62.99%	Kyra Harris Bolden	D	Black	82.9
34	49491	30419	61.46%	Cynthia R. Neeley	D	Black	86.7
2	57031	33142	58.11%	Joe Tate	D	Black	74.1
5	49290	27190	55.16%	Cynthia A. Johnson	D	Black	93.4
6	67505	36182	53.60%	Tyrone Carter	D	Black	100.0
4	68749	32761	47.65%	Abraham Aiyash	D	ME	89.8
29	72319	26621	36.81%	Brenda Carter	D	Black	72.9
95	58640	21320	36.36%	Amos O'Neal	D	Black	70.1
49	64844	19308	29.78%	John D. Cherry	D	White	68.9
54	72426	21212	29.29%	Ronnie Dean Peterson	D	Black	77.7
12	73883	20207	27.35%	Alex Garza	D	Hispanic	62.4
11	73586	19760	26.85%	Jewell Jones	D	Black	65.2
92	66135	16957	25.64%	Terry J. Sabo	D	White	65.3
27	73337	18051	24.61%	Regina Weiss	D	White	74.4
75	76956	18127	23.56%	David LaGrand	D	White	74.6
16	74617	17556	23.53%	Kevin Coleman	D	White	62.5
68	71672	16808	23.45%	Sarah Anthony	D	Black	75.9
18	75251	16519	21.95%	Kevin Hertel	D	White	60.3
60	74176	15887	21.42%	Julie M. Rogers	D	White	71.4
22	68758	14588	21.22%	Richard M. Steenland	D	White	59.9
28	70132	14012	19.98%	Lori M. Stone	D	White	60.3
79	65091	12312	18.92%	Pauline Wendzel	R	White	56.6
31	71180	13047	18.33%	William J. Sowerby	D	White	56.3
37	78055	14166	18.15%	Samantha Steckloff	D	White	63.9
62	69641	11301	16.23%	Jim Haadsma	D	White	51.3
21	77493	11721	15.13%	Ranjeev Puri	D	Asian	59.2
76	79357	11258	14.19%	Rachel Hood	D	White	62.8
72	79315	10619	13.39%	Steven Johnson	R	White	55.1
50	72856	8173	11.22%	Tim Sneller	D	White	54.2
24	73550	8072	10.97%	Steve Marino	R	White	57.5
55	79483	8123	10.22%	Felicia Brabec	D	W <u>hi</u> te	72.4
64	65167	6497	9.97%	Julie Alexander	R	whiter.	App.o.

Threshold of Representation: State House

- All districts over 36%
   Black elect minority
   candidates
- 89% of districts over 25%
   Black elect minority
   candidates
- No state house districts between 37 and 47% Black





- >> CHAIR SZETELA: Absolutely.
- >> DR. LISA HANDLEY: Have I done it.
- >> CHAIR SZETELA: Yes, you have.

>> DR. LISA HANDLEY: Okay very good. Some select minority groups were identified, I think it was between basically between your legal staff and sorry between your legal staff and you all. And so I've looked at the voting patterns of a few groups but I wasn't able to look at when I was looking at the state as a whole or even Counties as a whole. But I did find a way to look at Hispanic voting patterns, Arab American voting patterns, Bengali American voting patterns and Chaldean voting patterns. In very specific areas and I just wanted to take about five minutes to show you what I found and I bet you won't be surprised about in any of this so let's go ahead.

So the way I was able to actually pull out voting patterns I had to localize the analysis. As I said I could not do it statewide I could not do it within the County but if I chose very small areas, I could produce some estimates. And so I was able to produce estimates for two areas. On opposite sides of the state. So one for Hispanics in the Detroit area and the second for Hispanics in the Grand Rapids area. And it's interesting because the voting patterns were slightly different. So here on the left is the map of the area that I actually looked at. I think Mexican town somewhere right around here. This is just the broader area around that. So we are right down around Mexican town. This is the area with the heaviest Hispanic population in Detroit. And over here is the summary chart. You will remember that I talk about producing two kinds of estimates ecological regression and ecological inference and they are produced in different by different statistical approaches so they won't always be the same, they won't or never be exactly the same but they are usually in the same ballpark. And what you can see here is that they are the same ballpark and that not surprisingly Hispanics in the Detroit area tend to vote for democrats.

And then down here in the democratic primary, I guess you could say the candidate of choice, although they are not overly cohesive is EI-Sayed so that is what I found out in terms of the Detroit area.

Then in terms of Grand Rapids, we looked at was I think it's the western portion of Grand Rapids. And an area called Wyoming. And combining those two I was able to produce Hispanic estimates here. Now what I found was first of all they are more cohesive in their support for democrats. But second of all, they turn out at lower rates. And this could be voting age population and not citizen age voting population so a big part of the difference might be the citizen voting age population. So turn out lower to create a support for democrats higher. Okay, then the next group I looked at was Arab American voting patterns. And I think you all pretty much figured out what was happening here. So I focused in on Dearborn Heights and Dearborn. And this is in part because this allowed me to do the analysis. But it also encompassed more than a third of the Arab American population in Michigan. In just this concentrated area according

to the Census Bureau. So what you can see here is very strong support for democratic candidates. Regardless whether you're looking at ER or EI it's incredibly high. Then when you look at the democratic primary there is very strong support for EI-Sayed. So they are very cohesive both in the primaries and the general elections in support of in the general elections democrats.

Okay, here is I told you I used two different techniques. And this is the first technique. Ecological regression. In each of these points on the scatter plot is a precinct in Dearborn Heights or Dearborn. And it shows a very strong pattern between the higher the proportion Arab American in the precincts and the stronger the support candidate would be in this particular instance. So you can visually see the very strong support for the democratic Presidential candidate in 2020.

The Bengali American voting patterns are essentially identical to those of Arab Americans. The area that we looked at is the area that was identified by various Bengali group as the areas that Bengalis tended to live in. So all we did here was use the Asian population and assumed that most of the Asians that we were analyzing were Bengali so very strong support for democratic candidates and very strong support in the democratic primary for EI-Sayed.

And then we come to the Chaldean voting patterns. And what's interesting about this first of all we are focused on Sterling Heights. That was the only way to get any sort of estimates out. The estimates are not great. They have very high standard errors and confidence in the rules because the higher proportion across any of these precincts was only about 30%. But from what we could tell this is not a particularly cohesive community. They pretty much are divided between democrats and republicans. Until 2020. And in which case they very strongly supported Trump. So they do not look like Arab Americans. They do not look like the Bengali community. They are voting differently. Here is you can see the scatter plot now here the relationship is exactly the opposite of what you saw when we were looking at Arab Americans. And so that is basically in a five-minute nutshell what I found. And what I wanted to do really was to answer any questions you might have about these voting patterns and also have to say I've gotten several questions about partisan fairness that I thought I could through e-mail that I thought I could answer as well. Anyway if you have any questions about anything now would be the time to ask me.

>> CHAIR SZETELA: Commissioner Clark?

>> COMMISSIONER CLARK: Yes. Thank you, Lisa. The question I have is you used the 2020 Presidential race. Why did you not use the composite index?

>> DR. LISA HANDLEY: I'm looking at actual voting patterns as you would if you were doing a racial bloc voting analysis. So I have actual election results here. And when we are looking at voting patterns, we want to look at actual voting patterns. We are only looking at the composite index when we are looking at partisan fairness as an attempt to project what we think might happen in proposed districts. Since we don't

have any elections in them. But if we are trying to determine what voting patterns look like in the past, we have elections. And that's what I used to do this. This is what you do to look at racial bloc voting analysis. When I gave you my preliminary that is based off the elections.

>> VICE CHAIR ROTHHORN: Hi Dr. Handley. So with the Bengali community we also have the Yemeni community. I'm wondering if there is a strong correlation with the Arab community because of that. And were you able to differentiate you're only using, okay, not, okay.

>> DR. LISA HANDLEY: So from the census numeration data we can get Hispanics and we can get Asians. We can get Arab Americans through the American community survey which is also a census product. We cannot get Bengalis. So this is Asians. So if the Yemeni community lives exactly where the Bengali community is there is no way to differentiate them.

>> VICE CHAIR ROTHHORN: Okay thank you. And then the last question I have is related to sort of how can this -- can we make assumptions now about a coalition District? Are we able to build coalition districts so to speak because of this information? Or do we still not have sort of cohesive understanding the African/American for example in the Hispanic line up because they are democratic or the Arab American and the Bengali community line up and they create a -- could create a coalition District because of that democratic preference or is that not a fair assumption to make in terms of voting preferences?

>> DR. LISA HANDLEY: Why I'm hesitating is that in the democratic primary, again, we only have the one statewide democratic party primary, I would be cautious because I don't think that Hispanics -- Hispanics and Arab Americans supported EI-Sayed. But now I can't remember who Black voters supported because I don't think it was EI-Sayed, was it?

>> VICE CHAIR ROTHHORN: It was Whitmer. Cohesive.

>> MR. BRUCE ADELSON: They were not cohesive.

>> DR. LISA HANDLEY: None of these groups, I shouldn't say that Hispanic and Black voters were not particularly cohesive in their support in the democratic primary was there is no question that Arab American and Bengalis were very cohesive in their support in the democratic primary. So it's a little hard in my opinion to argue that you're going to produce what would satisfy the three prongs of Jingles if you wanted to create this District. But there is no question that they all support democrats in the general election. I will leave it up to the lawyers to actually tell you what this means in terms of the legal ramifications of this.

>> CHAIR SZETELA: I can't see the folks online so Commissioner Kellom, Commissioner Curry or Commissioner Wagner if you have your hands up, please let me know because I can't tell. I cannot see.

>> DR. LISA HANDLEY: I will stop sharing so I can see you guys.

>> CHAIR SZETELA: All right, any additional comments or questions? Commissioner Eid?

>> COMMISSIONER EID: Well, it seems like most of the assumptions we have made in mapping have borne out to be correct. So I'm just wondering is there any better way to use this data and this analysis moving forward while making these final changes on our maps?

>> DR. LISA HANDLEY: Somewhat of a question for the lawyers who have been sitting there the whole time and watching this and knowing what is possible. But I will tell you that it looks like these are very cohesive communities. With exception of the Chaldeans. And I'm not sure what you can do in terms of the first prong of Jingles. But I would hesitate to sort of draw lines down the middle of them. But I think some of these are too large, aren't they? I don't think you can include Dearborn Heights and Dearborn in the same District. But again this is something probably the lawyers should answer or somebody who has been watching the drawing process and can actually tell you where people live and what this could mean.

>> CHAIR SZETELA: So Dr. Handley, for the Chaldean community could you bring up that map again and indicate where, what area you analyzed, was that Oakland County?

>> DR. LISA HANDLEY: Yes, it was Oakland and I think some of Macomb. Let's bring it up again. You can probably better answer that better than me. I can't remember now. Let's see. Oh, no, it was just Sterling Heights for Chaldean this is Sterling Heights. This includes about a little more than a third of the Chaldean population in Michigan. And yes so, we looked at that whole area and only that area.

>> CHAIR SZETELA: Okay, thank you. Commissioner Eid?

>> COMMISSIONER EID: Just out of curiosity why wasn't West Bloomfield looked at for Chaldean population?

>> DR. LISA HANDLEY: Because we were looking at the highest concentration. So that I mean the whole reason that you couldn't do and also is it contiguous with this?

>> COMMISSIONER EID: No it's not.

>> DR. LISA HANDLEY: That is why. You couldn't do it alone. There weren't enough and you can't look at two areas separately really. So we just focused on the area with the largest population. It would not have been enough precincts in the at any other area to do this analysis for this group.

>> CHAIR SZETELA: All right and just to clarify for people who don't know Chaldean typically means Christians Arabic who are Catholic and most who live in Dearborn is Muslim so it could be a difference in really on. That is sort of driving the difference in voting.

>> COMMISSIONER EID: I would say that is accurate Chaldeans are Arab American it's more of a faith-based community. And issues surrounding the church are important to how Chaldeans vote. So that explains that in my eyes.

>> CHAIR SZETELA: All right, if unless anyone else has questions for Dr. Handley thank you for your time. We appreciate you coming and being at our Beck and call whenever we need you. [Laughter]

So thank you for your analysis. If you could send this to Sue so she can distribute it to everybody I would greatly appreciate it.

>> DR. LISA HANDLEY: Sure thing okay.

>> CHAIR SZETELA: All right. So Commissioner Kellom did you want to try to work on that map more?

>> COMMISSIONER KELLOM: What do we have left on our agenda for today? Just finishing up? I just want to make sure.

>> CHAIR SZETELA: Yeah, I mean well we have to finish Congressional then we move on to house. Mr. Adelson looks like he has a comment.

>> MR. BRUCE ADELSON: We thought this would be a good time to put in additional context. I know that Dr. Handley and I have an arrangement that she goes up to a certain point on the continuum and then she leaves the rest for us to talk about. So on to be consistent so let's talk a little bit about from a legal standpoint what she said.

It is very interesting that the Hispanic voting patterns in Wayne County are differ than they are in the Grand Rapids area. The speculation is the Hispanic population may be older in Wayne County than in the Grand Rapids area. They both vote cohesively. Meaning that they tend to support the same candidate. And in Grand Rapids the cohesion is greater. Turn out is higher in Wayne County. Cohesion is higher in Grand Rapids. The turnout is lower in Grand Rapids. Cohesion is moderately less here. I think for president in Wayne County as I recall 75% of Hispanics voted for Biden. And in Grand Rapids it's like 96%. So it's quite significant cohesion. The Arab American cohesion is even greater meaning Arab Americans within with the exceptions of Chaldeans voted cohesively as a group. So they tend to support the same candidates as in the elections analyzed Hispanics and Black voters. The Chaldean is interesting because that is they are obviously as Dr. Handley said an out liar as Arab Americans overall. So if that community which is not a large community could be pinpointed that is something the Commission might want to look at. As far as not splitting them. The Bengali highly cohesive, turn out is high and again they support the same generally the same candidates as Hispanics, Arab Americans and Black voters.

So what does this mean going forward? That as we had speculated before about Hispanic voting patterns, Hispanic voting patterns can be aligned up to a point with Black voting patterns. To answer your question, Commissioner, that would seem to have some potential in a coalition District. So that is different than if Hispanic voting patterns were like Chaldean voting patterns. Then that would not line up as a coalition District with groups supporting the same candidate. So I think that's very important. I think we both think that is very important going forward and looking at Hispanic populations, the Arab American population and the Bengali population in the Detroit

area. That there is a commonality of support. Yes, there are differences in turn out. There are differences in cohesion. But it's not like the Chaldean voting patterns. Which is those are quite different. And they would not be a viable coalition partner so to speak. To the same extent that Bengali supporters would be. Our advice is the populations now may have additional play as you're looking at the potential adjustments to districts, not only in fortifying districts with plurality or majority minority populations. But they may also be a significant part of districts that either have not been considered or were considered but there was some uncertainty whether the voting patterns lined up. So I think that is our takeaway from what Dr. Handley discussed today. It's something as you know we have been waiting for a while because we had identified this as a very important piece of the voting rights puzzle. And also the 14th amendment equal protection. So those are our general thoughts. Thank you.

>> CHAIR SZETELA: All right any questions for Mr. Adelson? Okay, so the point we are at right now is 5:25. We have three proposed Congressional maps that we worked on and then a fourth that Commissioner Kellom I'm not sure if you still want to work on more or not. Do we want to take any action or make any more changes to the three that we worked on earlier? Are we interested in moving them forward? Commissioner Orton?

>> COMMISSIONER ORTON: One of them, I'm not sure which one, perhaps Chestnut one of them had higher population deviation that I think we could bring down. We had made some changes to it, but we didn't really focus on that.

>> CHAIR SZETELA: Okay, I think -- I'm not sure which one. Does anyone remember which one? I feel like it was apple because I thought that was the last one, we worked on. But I'm not.

>> COMMISSIONER ORTON: Maybe apple can you pull it up.

>> CHAIR SZETELA: Can we pull up apple and take a look? I thought we made the changes around Grand Rapids and that changed the deviation a bit. So .78.

>> MR. KENT STIGALL: .78, those are the two and that is the way it was left.

>> CHAIR SZETELA: Feel free to lead the discussion Commissioner Orton.

>> COMMISSIONER ORTON: Okay, I think we need to fix that. Can you Zoom in to the line between five and four? Okay so the issue is, just going to make a skinnier neck there.

>> CHAIR SZETELA: One more.

>> COMMISSIONER ORTON: It looks like the precincts are almost Townships in most of that area.

>> CHAIR SZETELA: Commissioner Witjes?

>> COMMISSIONER WITJES: What about that precinct with the big squiggly line in four?

>> VICE CHAIR ROTHHORN: That is next to 13.

>> CHAIR SZETELA: Bordering 13.

# Report to the Michigan Independent Citizens Redistricting Commission Dr. Lisa Handley

## Preface

This report outlines the analyses I conducted on behalf of the Michigan Independent Citizens Redistricting Commission (MICRC) and relays my findings. I also briefly explain the partisan fairness measures I advised the MICRC to adopt as a component of the redistricting software and why I made these recommendations. The legal implications of my findings and the assessment of any proposed plans have been left to the MICRC legal team.

# I. The Voting Rights Act and Racially Polarized Voting

The Voting Rights Act of 1965 prohibits any voting standard, practice or procedure – including redistricting plans – that result in the denial or dilution of minority voting strength. Section 2 of the Voting Rights Act was amended in 1982 to establish that intentional discrimination need not be proven (as the Supreme Court determined was required under the 15<sup>th</sup> Amendment to the Constitution). The U.S. Supreme Court first interpreted the amended Act in *Thornburg v. Gingles*,<sup>1</sup> a challenge to the 1982 North Carolina state legislative plans. In this case the U.S. Supreme Court held that plaintiffs must satisfy three preconditions to qualify for relief:

- The minority group must be sufficiently large and geographically compact to form a majority in a single-member district
- The minority group must be politically cohesive
- Whites must vote as a bloc to usually defeat the minority-preferred candidates

What do we mean when we say minority voters must be politically cohesive? And how do we know if white voters usually vote as a bloc to defeat the candidates preferred by minority voters? According to the Court, racially polarized voting is the "evidentiary linchpin" of a vote dilution claim. Voting is racially polarized if minorities and whites consistently vote for different candidates. More specifically, if minorities consistently support the same candidates, they are said to be politically cohesive. If whites are consistently *not* supporting these candidates, they are said to be bloc voting against the minority-preferred candidates.

<sup>&</sup>lt;sup>1</sup> 478 U.S. 30 (1986).

The Voting Rights Act requires a state or local jurisdiction to create districts that provide minority voters with an opportunity to elect their candidates of choice if voting is racially polarized and the candidates preferred by minority voters usually lose. If districts that provide minority voters with the opportunity to elect their preferred candidates already exist, these must be maintained.

## A. Analyzing Voting Patterns by Race

An analysis of voting patterns by race serves as the foundation of two of the three elements of the "results test" as outlined in *Gingles*: a racial bloc voting analysis is needed to determine whether the minority group is politically cohesive; and the analysis is required to determine if whites are voting sufficiently as a bloc to usually defeat the candidates preferred by minority voters. The voting patterns of white and minority voters must be estimated using statistical techniques because direct information the race of the voters is not, of course, available on the ballots cast.

To carry out an analysis of voting patterns by race, an aggregate level database must be constructed, usually employing election precincts as the units of observation. Information relating to the demographic composition and election results in these precincts is collected, merged and statistically analyzed to determine if there is a relationship between the racial composition of the precincts and support for specific candidates across the precincts.

*Standard Statistical Techniques* Three standard statistical techniques have been developed over time to estimate vote choices by race: homogeneous precinct analysis, ecological regression, and ecological inference.<sup>2</sup> Two of these analytic procedures – homogeneous precinct analysis and ecological regression – were employed by the plaintiffs' expert in *Gingles*, have the benefit of the Supreme Court's approval in that case, and have been used in most subsequent voting rights cases. The third technique, ecological inference, was developed after the *Gingles* decision and was designed, in part, to address some of the disadvantages associated with ecological regression analysis. Ecological inference analysis has been introduced and accepted in numerous court proceedings.

<sup>&</sup>lt;sup>2</sup> For a detailed explanation of homogenous precinct analysis and ecological regression see Bernard Grofman, Lisa Handley and Richard Niemi, *Minority Representation and the Quest for Voting Equality* (Cambridge University Press, 1992). See Gary King, *A Solution to the Ecological Inference Problem* (Princeton University Press, 1997) for a more detailed explanation of ecological inference.

Homogeneous precinct (HP) analysis is the simplest technique. It involves comparing the percentage of votes received by each of the candidates in precincts that are racially or ethnically homogeneous. The general practice is to label a precinct as homogeneous if at least 90 percent of the voting age population is composed of a single race.<sup>3</sup> In fact, the homogeneous results reported are not estimates – they are the actual precinct results. However, most voters in Michigan do not reside in homogeneous precincts and voters who reside in homogeneous precincts. For this reason, I refer to these percentages as estimates.

The second statistical technique employed, ecological regression (ER), uses information from all precincts, not simply the homogeneous ones, to derive estimates of the voting behavior of minorities and whites. If there is a strong linear relationship across precincts between the percentage of minorities and the percentage of votes cast for a given candidate, this relationship can be used to estimate the percentage of minority (and white) voters supporting the candidate.

The third technique, ecological inference (EI), was developed by Professor Gary King. This approach also uses information from all precincts but, unlike ecological regression, it does not rely on an assumption of linearity. Instead, it incorporates maximum likelihood statistics to produce estimates of voting patterns by race. In addition, it utilizes the method of bounds, which uses more of the available information from the precinct returns as well as providing more information about the voting behavior being estimated.<sup>4</sup> Unlike ecological regression, which can produce percentage estimates of less than 0 or more than 100 percent, ecological inference was designed to produce only estimates that fall within the possible limits. However, EI does not guarantee that the estimates for all of the candidates add to 100 percent for each of the racial groups examined.

In conducting my analysis of voting patterns by race in statewide elections in Michigan, I also used a more recently developed version of ecological inference, which I have labeled "EI

<sup>&</sup>lt;sup>3</sup> If turnout or registration by race is available, this information is used to identify homogenous precincts.

<sup>&</sup>lt;sup>4</sup> The following is an example of how the method of bounds works: if a given precinct has 100 voters, of whom 75 are Black and 25 are white, and the Black candidate received 80 votes, then at least 55 of the Black voters voted for the Black candidate and at most all 75 did. (The method of bounds is less useful for calculating estimates for white voters in this example as anywhere between none of the whites and all of the whites could have voted for the candidate.)

RxC" in the summary tables found in the Appendices at the end of the report. EI RxC expands the analysis so that more than two racial/ethnic groups can be considered simultaneously. It also allows us to take into account differences in the relative rates of minority and white turnout when, as is the case in Michigan, we do not have turnout by race but instead must rely on voting age population by race to derive estimates of minority and white support for each of the candidates.

*Database* To analyze voting patterns by race using aggregate level information, a database that combines election results with demographic information is required. This database is almost always constructed using election precincts as the unit of analysis. The demographic composition of the precincts is based on voter registration or turnout by race/ethnicity if this information is available; if it is not, then voting or citizen voting age population is used. Michigan does not collect voter registration data by race and therefore voting age population (VAP) by race and ethnicity as reported in the PL94-171 census redistricting data was used for ascertaining the demographic composition of the precincts.<sup>5</sup>

The precinct election returns for the general elections, as well as precinct shape files, census block-to-precinct assignment files,<sup>6</sup> and election results disaggregated to the block level were supplied by the Michigan Secretary of State. The Democratic primary results had to be collected county by county and were either downloaded directly or cut and pasted from pdf files.

*Geographic areas* Producing reliable estimates of voting patterns by race requires an adequate number of minority and white voters, an adequate number of election precincts, and sufficient variation in the percentage of minority and white voters across the precincts. Only a few counties in Michigan satisfied these conditions, and only for one group of minority voters – Black voters. It was not possible to produce reliable statewide or countywide estimates for Hispanic or Asian voters in Michigan. However, estimates for Hispanics, as well as some additional minority groups, were produced for very localized areas in Michigan and this analysis is discussed below in a separate section entitled "Voting Patterns of Minority Voters other than Black Voters." As a

<sup>&</sup>lt;sup>5</sup> Since the only minority group sufficiently large enough in the State of Michigan to produce estimates of voting patterns is Black residents and there is not a high non-citizenship rate to account for when conducting the analysis, estimates of citizen voting age population by race were not included in the database.

<sup>&</sup>lt;sup>6</sup> Shape files and block-to-precinct equivalency files made it possible to account for changes in precinct boundaries, and therefore precinct demographics, over time.

consequence of the three limitations listed above, I was able to reliably estimate the voting patterns of Blacks and whites statewide and in the four counties: Wayne, Oakland, Genesee, and Saginaw.

*Elections analyzed* All statewide elections held in the State during the preceding decade (2012-2020) were analyzed, both for voters within the state as a whole and in the four counties that had a sufficient number of Black VAP conduct the analysis – Wayne, Oakland, Genesee, and Saginaw. The general elections analyzed included: U.S. President (2012, 2016, 2020), U.S. Senate (2012, 2014, 2018, 2020), and the statewide offices of Governor, Secretary of State, and Attorney General in 2014 and 2018.

Four of these contests included African American candidates:<sup>7</sup> the 2012 presidential election, the 2014 election contest for Secretary of State, and the U.S. Senate contests in 2018 and 2020. Only two of these four contests included African American candidates supported by Black voters, however: Barack Obama in his bid for re-election in 2012 and Godfrey Dillard in his race for Secretary of State in 2014. John James, an African American Republican who ran for U.S. Senate in 2018 and 2020, was not the candidate of choice of Black voters. In addition, two election contests included African American candidates as running mates: the 2018 gubernatorial race in which Garlin Gilchrist ran for Lieutenant Governor and Gretchen Whitmer as Governor, and the 2020 presidential race in which Kamala Harris ran for Vice President. Both sets of running mates were strongly supported by Black voters.

There was only one statewide Democratic primary for statewide office the previous decade: the 2018 race for governor. I analyzed this Democratic primary (as well as congressional and state legislative Democratic primaries) and not Republican primaries because the overwhelming majority of Black voters who choose to vote in primaries cast their ballots in Democratic rather than Republican primaries. As a consequence, Democratic primaries are far more probative than Republican primaries for ascertaining the candidates preferred by Black voters.<sup>8</sup> Moreover, this

<sup>&</sup>lt;sup>7</sup> Courts consider election contests that include minority candidates more probative than contests that include only white candidates for determining if voting is racially polarized. This is because it is not sufficient for minority voters to be able to elect their candidates of choice only if these candidates are white. On the other hand, it is important to recognize that not all minority candidates are the preferred candidates of minority voters.

<sup>&</sup>lt;sup>8</sup> In addition, producing reliable estimates for Black voters in Republican primaries would not have been possible.

primary included two minority candidates: Abdul El-Sayed, who is of Egyptian descent, and Shri Thanedar, who is Indian-American.

In addition to these statewide elections, I also analyzed recent congressional and state legislative elections in districts that fell within Wayne, Oakland, Saginaw and Genesee Counties and had a Black VAP that was large enough to produce reliable estimates.<sup>9</sup> Because of the very substantial changes in district boundaries between the current district boundaries and any of the proposed district plan boundaries, these election contests cannot be considered indicative of voting patterns in any proposed districts. However, they are important for at least two reasons. First, although few minority candidates ran for office statewide, there were many who ran in legislative elections, especially in Wayne County. Second, while there was only one statewide Democratic primary conducted over the course of the previous decade, there have been numerous recent Democratic primaries for congressional and state legislative office.

#### **B.** Statewide and County Results

Table 1, below, lists the number of statewide election contests that were racially polarized, both for Michigan as a whole, and for each of the four counties considered individually. This tabulation is based on the racial bloc voting summary tables found in Appendix A. The second column indicates the number of contests that included African American candidates that were polarized (over the total number of contests with African American candidates), the third column is the number of statewide general elections (out of the 13 analyzed) that were polarized and the final column reports the results of the only statewide Democratic primary.

Statewide, all election contests other than the 2012 US. Senate race won by Debbie Stabenow were racially polarized. (Her 2018 election contest, however, was racially polarized.) The candidate who obtained the lowest vote percentage statewide was African American candidate for Secretary of State in 2014, Godfrey Dillard. This was because he received less white crossover votes than any other candidate – the percentage of Black voters supporting him was comparable to the percentage of Black voters supporting the other Democratic candidates competing statewide.

<sup>&</sup>lt;sup>9</sup> In some state house districts, there was not enough whites of voting age to conduct an analysis of voting patterns by race.

	General Elections with Minority Candidates	All Statewide General Election Contests	Statewide Democratic Primary
Statewide	6/6	12/13	1/1
Genesee	5/6	9/13	1/1
Saginaw	6/6	11/13	1/1
Oakland	6/6	13/13	0/1
Wayne	3/6	7/13	1/1

#### Table 1: Number of Statewide Elections Analyzed that were Polarized

Every statewide general election contest analyzed was polarized in Oakland County – only in the Democratic primary for Governor in 2018 did Black and white voters support the same candidate (Gretchen Whitmer). Voting in Saginaw County was nearly as polarized: two U.S. Senate contests (2012 and 2014) were not polarized, but the gubernatorial primary was polarized. Black and white voters agreed on the same candidates slightly more often in Genesee County – in addition to supporting U.S. senate candidates Debbie Stabenow in 2012 and Gary Peters in 2014, they both supported Barack Obama in 2012 and Democrat Mark Schauer for Governor in 2014.

Voting in Wayne County was considerably less racially polarized than statewide or in the other three counties studied. However, slightly more than half of the general election contests and the one statewide Democratic primary analyzed were polarized, with Black and white voters supporting the same candidates in 2012, disagreeing on the three statewide offices, but supporting the same U.S. Senate candidate in 2014, supporting different candidates for U.S. President in 2016 and 2020, and voting for most of the same candidates in 2018.

#### C. Congressional and State Legislative Election Results

This section provides a summary of my racial bloc voting analysis of recent congressional and state legislative districts in the four-county area of Wayne, Oakland, Genesee and Saginaw. I analyzed 2018 and 2020 general elections, and the 2018 and 2020 Democratic primaries if at least one African American candidate competed in the election contest. However, for a number of state

legislative elections, there were too many candidates and too few votes cast to obtain reliable estimates. In addition, there were three state house districts – districts 3, 7, 8 – where there were an insufficient number of white voters to produce reliable estimates. The summary tables reporting each of estimates for these contests are found in Appendix B.

Table 2, below, summarizes the congressional district results for congressional districts 5, 9, 12, 13 and 14.<sup>10</sup> In most instances, voting was not racially polarized – in 80% of the general elections and 75% of the contested Democratic primaries analyzed, Black and white voters supported the same candidates. Three of the contests analyzed were, however, polarized. The Black-preferred candidate won two of these contests: Districts 5 and 13 in the 2020 general election. The other polarized contest was the 2018 bid for the Democratic nomination for full two-year term the in District 13. Six candidates competed in this contest, four African American candidates, including the candidate of choice of a plurality of Black voters, Brenda Jones; Bill Wild, a white candidate; and Rashida Tlaib, an American of Palestinian descent. White voters divided their votes between Wild and Tlaib. Tlaib won the nomination with 27,841 votes (31.17%), and Benda Jones came in a close second with 26,941 votes (30.16%).<sup>11</sup>

Congress District	Location	Percent BVAP	2018 Democratic primary	2018 General election	2020 Democratic primary	2020 General election	
5	Genesee & Saginaw, plus	16.63	no contest	not polarized	no contest	polarized - won	
9	Oakland & Macomb	13.83	only white candidates	not polarized	no contest	not polarized	
12	Wayne & Washtenaw	11.73	no contest	not polarized	not polarized	not polarized	

 Table 2: Summary of Congressional District Racial Bloc Voting Analysis

<sup>&</sup>lt;sup>10</sup>Congressional District 11, which is also located in the area of interest (Oakland and Wayne), as well as Districts 8 (partially in Oakland) and 4 (partially in Saginaw), had too few Black voters to produce reliable estimates of their vote choices.

<sup>&</sup>lt;sup>11</sup> A special election for filling the partial term for District 13 – left vacant when John Conyers resigned – was conducted at the same time with many of the same candidates. Brenda Jones won this contest with 32,769 (37.75%) votes; Rashida Tlaib came in second with 31,121 (35.85%) votes.

Congress District	Location	Percent BVAP	2018 Democratic primary	2018 General election	2020 Democratic primary	2020 General election
13	Wayne	54.78	polarized - lost	not polarized	not polarized	polarized - won
14	Wayne & Oakland	55.16	no contest	not polarized	not polarized	not polarized

The results of my analysis recent state senate elections is found in Table 3, below. There were no Democratic primaries in two districts (12 and 27), and no minority candidates competed in a third (District 32). In addition, there was one Democratic primary in which 11 candidates competed – too many to produce reliable estimates. Of the 16 contests analyzed, 10 were not polarized (three primaries and seven general elections), four were polarized but the Black-preferred candidate won (two primaries and two generals), and two were polarized and the candidates of choice of Black voters lost. One of these contests was the general election in District 32, which has only 13.45% BVAP.<sup>12</sup> The other polarized contest that the Black-preferred candidate lost was the Democratic primary in State Senate District 1 in 2018. Six candidates competed in this election. The plurality choice of Black voters supported the Asian candidates, Stephanie Chang, who was the second choice of Black voters. Chang won with 49.8% of the vote (Talabi received 26.4%).

State Senate District	Location	Percent BVAP 2018 Democratic primary		2018 General election		
1	Wayne	44.68	polarized - lost	not polarized		
2	Wayne 50.82		<i>na</i> (11 candidates)	not polarized		

 Table 3: Summary of State Senate District Racial Bloc Voting Analysis

<sup>&</sup>lt;sup>12</sup> The Black VAP percentages listed throughout this report are from the MICRC redistricting GIS active matrix tab labeled "5A," which indicates the percentage of non-Hispanic voting age population who indicated they were Black or Black in combination with any other race. This produces the maximum number of individuals within each racial group, including Black, but will result in totals over 100% since persons identifying as more than one race will be counted more than once.

State Senate District	Location	Percent BVAP	2018 Democratic primary	2018 General election	
3	Wayne	48.14	polarized - won	not polarized	
4	Wayne	47.00	not polarized	not polarized	
5	Wayne	54.25	polarized - won	not polarized	
6	Wayne	21.29	not polarized	polarized - won	
11	Oakland	35.48	not polarized	not polarized	
12	Oakland	14.87	no contest	polarized - won	
27	Genesee	30.42	no contest	not polarized	
32	Genesee & Saginaw 13.4		no minority candidates	polarized - lost	

The final table in this section, Table 4, summarized the results of my analysis of recent state house election. A number of the cells in the table have "na" as an entry because estimates are not available. This was for one of two reasons: there were too many candidates and too few votes cast to obtain reliable estimates, or there were an insufficient number of white voters to produce reliable estimates (state house districts 3, 7, 8).

It was possible to produce estimates for 54 contests. The majority of these contests were not polarized – in 37 contests (68.5%), white and Black voters supported the same candidates. In another 13 contests, voting was polarized but the candidate preferred by Black voters won. There were four contests – all Democratic primaries – that were racially polarized and the Blackpreferred candidate lost. In three of these contests, the BVAP of the districts was less than 30% (Districts 12, 16, and 37). The Black-preferred candidates also lost the 2018 Democratic primary in House District 29, which has a 36.04% BVAP. All six of the candidates competing were African Americans. The plurality choice of Black voters was Kermit Williams; Brenda Carter was the candidate of choice of a majority of white voters. Carter won with 30.7% of the vote and Williams came in second with 24.7% of the vote.

	1 abic 4	• Summa	ry of State House		Dioc voung Ana	19515	
State House District	Location	Percent BVAP	2018 Democratic primary	2018 General election	2020 Democratic primary	2020 General election	
1	Wayne	64.76	not polarized	polarized - won	no contest	polarized - won	
2	Wayne	57.70	<i>na</i> (7 candidates)	not polarized	not polarized	not polarized	
3	Wayne	90.93	na	na	na	na	
4	Wayne	47.27	<i>na</i> (15 candidates)	not polarized	<i>na</i> (13 candidates)	not polarized	
5	Wayne	54.12	polarized - won	not polarized	not polarized	not polarized	
6	Wayne	52.86	<i>na</i> (10 candidates)	not polarized	polarized - won	no contest	
7	Wayne	94.27	na	na	na	na	
8	Wayne	92.42	na	na	na	na	
9	Wayne	74.22	not polarized	not polarized	polarized - won	not polarized	
10	Wayne	67.41	not polarized	not polarized	na (8 candidates)	not polarized	
11	Wayne	26.53	polarized - won	not polarized	no contest	not polarized	
12	Wayne	26.97	polarized - lost	polarized - won	not polarized	polarized - won	
16	Wayne	23.25	polarized - lost	not polarized	no contest	not polarized	
27	Oakland	24.35	not polarized	not polarized	<i>na</i> (8 candidates)	not polarized	

Table 4: Summary	of State House	<b>District Racial</b>	<b>Bloc Voting Analysis</b>

State House District	Location	Percent BVAP	2018 Democratic primary	2018 General election	2020 Democratic primary	2020 General election
29	Oakland	36.04	polarized - lost	not polarized	no contest	not polarized
35	Oakland	62.50	polarized - won	not polarized	not polarized	not polarized
37	Oakland	17.91	no contest	not polarized	polarized - lost	not polarized
34	Genesee	60.96	not polarized	polarized - won	not polarized	polarized - won
49	Genesee	29.47	not polarized	not polarized	no contest	not polarized
95	Saginaw	35.50	no contest	not polarized	polarized - won	polarized - won

# D. Voting Patterns of Minority Voters other than Black Voters

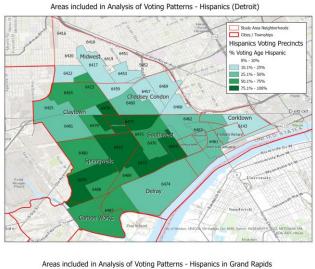
As noted above, it was not possible to produce estimates of voting patterns by race for any groups other than Blacks and whites (more specifically, non-Hispanic whites) statewide or by county. However, by localizing the analysis in geographic areas much smaller than counties, it was possible to derive estimates for several additional minority groups: Hispanics, Arab Americans, Chaldeans, and Bangladeshi Americans.<sup>13</sup> Because these estimates could not be generated statewide, it is difficult to know if the voters included in the analysis are representative of the group as a whole statewide. The summary tables reporting the estimates for these groups can be found in the Appendix C.

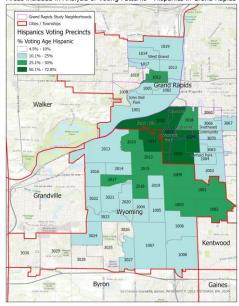
*Hispanic Voters* Hispanics live in large enough concentrations to produce estimates in two areas of Michigan. Because these concentrations are in different areas of the state, I did not combine them. Instead, I have produced estimates for Hispanics living in the area of Detroit depicted in the first map below ("Areas included in Analysis of Voting Patterns – Hispanics

<sup>&</sup>lt;sup>13</sup> Interest in the voting patterns of Arab Americans, Chaldeans and Bangladeshi Americans was prompted by comments received in public hearings and on the public portal.

(Detroit)") and in the Grand Rapids area depicted in the second map ("Areas included in Analysis of Voting Patterns – Hispanics in Grand Rapids"). In both maps, the precincts are shaded based on the percentage Hispanic in the precinct.<sup>14</sup>

While the voting patterns do not appear to be very different – both groups provide strong support for Democratic candidates in general elections – the turnout levels differ. In the Grand Rapids area, turnout among Hispanics of voting age is lower than it is in the Detroit area.

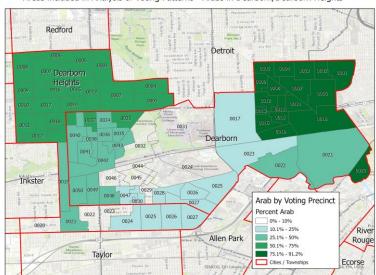




<sup>&</sup>lt;sup>14</sup> The Hispanic VAP used for shading the map and conducting the racial bloc voting analysis was derived from the 2020 94-171 census redistricting data, which reports Hispanic VAP by census block. This data was then aggregated up to the precinct level.

*Arab American Voters* Approximately 38% of the Arab American population in Michigan is concentrated in the Dearborn and Dearborn Heights area. Localizing the racial bloc voting analysis to this specific area offered sufficient variation across the precincts to produce estimates of the voting behavior of this group. The map below indicates the geographic area included in the analysis; the precincts are shaded by the percentage of residents who are Arab American.<sup>15</sup>

Arab Americans voters, at least in this area of Michigan, strongly support Democratic candidates in general elections – over 80% consistently supported the Democratic candidate in the six 2018-2020 general elections examined. These voters, unlike other groups of voters studied, were also very cohesive in 2018 Democratic primary for Governor – they strongly supported of Abdul El-Sayed in his bid for the nomination.

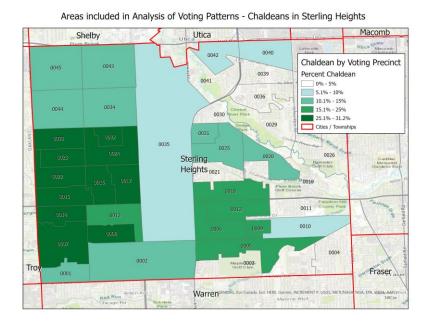


Areas included in Analysis of Voting Patterns - Arabs in Dearborn/Dearborn Heights

<sup>&</sup>lt;sup>15</sup> The Arab American data was derived from the U.S. Census Bureau's American Community Survey (ACS), Table B04004, "People Reporting Single Ancestry." This data, reported at the census tract level, was attributed down to the census block level and then aggregated up to the election precinct level.

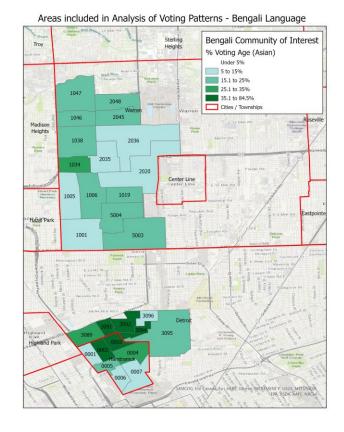
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*Chaldeans,* like Arab Americans in Michigan, tend to reside in a geographically concentrated area of Michigan – in this instance, Sterling Heights. Over 40% of the Chaldean population cand be found here.<sup>16</sup> Localizing the voting analysis to Sterling Heights produced reliable estimates of the voting patterns of this community. Chaldeans are not nearly as cohesive as Arab Americans – they consistently divided their support between the Democratic and Republican candidates. However, a clear majority of Chaldean voters supported Donald Trump in his bid for re-election in 2020.



<sup>16</sup> The Chaldean data was derived from the U.S. Census Bureau's American Community Survey (ACS), Table B04004, "People Reporting Single Ancestry" using the Assyrian/Chaldean/Syriac designation. This census tract level data was attributed down to the census block level and then aggregated up to the election precinct level.

*Bangladeshi American Voters* Using a map identifying the Bangladeshi American community of interest submitted to the MICRC,<sup>17</sup> this localized analysis focused on West Warren and Hamtramck to produce estimates of the vote choices of this group. Bangladeshi American voting patterns are very similar to Arab American voting patterns.<sup>18</sup> Both groups provided strong support for Democratic candidates in general elections and both groups were cohesive in their support of Abdul El-Sayed in the 2018 Democratic primary for Governor.



<sup>&</sup>lt;sup>17</sup> The map was submitted on the public comment portal on 9/8/2021 by Hayg Oshagan with the following comment "This is the Bengali community of SE MI. The area around Hamtramck (to the South) is most densely populated and is the center of the community."

<sup>&</sup>lt;sup>18</sup> Asian VAP by census block as reported by the 2020 94-171 census redistricting data was used to create the shading on the map and the racial bloc voting database.

# **II. Drawing Minority Opportunity Districts**

Because voting in Michigan is racially polarized, districts that provide minority voters with an opportunity to elect their candidates of choice must be drawn. If they already exist – as many do in Michigan – they must be maintained. But maintaining minority opportunity districts does not necessarily require that the districts be redrawn with the same percentage minority voting age population. In fact, many of the minority districts in the current plan are packed with far more Black VAP than needed to elect candidates of choice, as indicated by the percentage of votes the minority candidates are garnering. (See Tables 9 and 10, in the next section of this report, for the Black VAP of the current state house and senate districts, the current incumbents and their race and party, and the percentage of votes each of the incumbents received in 2020.)

An analysis must be undertaken to determine if a proposed district is likely to provide minority voters with an opportunity to elect their candidates of choice to office. This analysis must be district-specific – that is, must recognize there are likely to be differences in participation rates and voting patterns in districts across the state – and it must be functional – that is, it must be based on actual voting behavior of whites and minorities. There is no single universal or statewide demographic target that can be applied for Black voters to elect their candidates of choice in Michigan.<sup>19</sup>

There are two related approaches to conducting a district-specific, functional analysis, both of which take into account the relative turnout rates and voting patterns of minorities and whites. The first approach uses estimates derived from racial bloc voting analysis to calculate the percent minority population needed in a specific area for minority-preferred candidates to win a district in that area.

The second approach relies on election results from previous contests that included minority-preferred candidates (as identified by the racial bloc voting analysis) to determine if these candidates would win election in the proposed districts. The election results for these "bellwether elections" – racially polarized elections that include minority candidates who are preferred by minority voters – are disaggregated down from the election precinct to the census block level and then recompiled to reflect the boundaries of the proposed district. If the minority-

<sup>&</sup>lt;sup>19</sup> Establishing a demographic target (e.g., 55% black voting age population) for all minority districts across the jurisdiction was, in fact, expressly forbidden by the U.S. Supreme Court in *Alabama Legislative Black Caucus v. Alabama*, 575 U.S. 254 (2015).

preferred candidates in these bellwether elections win in the proposed district, this district is likely to provide minority voters with an opportunity to elect their candidates of choice. This latter approach can be used only if proposed district boundaries have been drawn. The former approach can be carried out before any new boundaries are drafted.

# A. Calculating the Black VAP Needed to Elect Black-Preferred Candidates

The percentage of minority voting age population needed in a district to provide minority voters with the opportunity to elect minority-preferred candidates to congress or to the state legislature varies. Using the estimates produced from the racial bloc voting analysis, I calculated the Black VAP percentages needed to elect minority-preferred candidates in each of the general elections included in the summary tables in the Appendix. This calculation takes into account the relative participation rates of age eligible Blacks and whites, as well as the level of Black support for the Black-preferred candidate (the "cohesiveness" of Black voters), and the level of whites "crossing over" to vote for the Black-preferred candidate.

*Equalizing minority and white turnout* Because Blacks who are age eligible to vote often turn out to vote at lower rates than white voters in Michigan, the Black VAP needed to ensure that Black voters comprise at least half of the voters in an election is often higher than 50%. Once the respective turnout rates of Black and Whites eligible to vote have been estimated using the statistical techniques described above (HP, ER and EI), the percentage needed to equalize Black and white voters can be calculated mathematically.<sup>20</sup> But equalizing turnout is

M = the proportion of the district's voting age population that is Black

W = 1-M = the proportion of the district's voting age population that is white

A = the proportion of the Black voting age population that turned out to vote

B = the proportion of the white voting age population that turned out to vote

Therefore,

M(A) = the proportion of the population that is Black and turned out to vote (1)

(1-M)B = the proportion of total population that is white and turned out to vote (2) To find the value of M that is needed for (1) and (2) to be equal, (1) and (2) are set as equal and we solve for M algebraically:

<sup>&</sup>lt;sup>20</sup> The equalizing percentage is calculated mathematically by solving the following equation: Let

only the first step in the process – it does not take into account the voting patterns of Black and white voters. If voting is racially polarized but a significant number of white voters typically "crossover" to vote for Black voters' preferred candidate, it may be the case that crossover voting can more than compensate for depressed Black turnout.

*Incorporating Minority Cohesion and White Crossover Voting* Even if Black citizens are turning out at lower rates than whites, and voting is racially polarized, if a relatively consistent percentage of white voters support Black-preferred candidates, the candidates preferred by Black voters can be elected in districts that are less than majority Black. On the other hand, if voting is starkly polarized, with few or no whites crossing over to vote for the candidates supported by Black voters, it may be the case that a district that is more than 50% Black VAP is needed to elect Black-preferred candidates. A district-specific, functional analysis should take into account not only differences in turnout rates, but also the voting patterns of Black and white voters.<sup>21</sup>

To illustrate this mathematically, consider a district that has 1000 persons of voting age, 50% of who are Black and 50% of who are white. Let us begin by assuming that Black turnout is lower than white turnout in a two-candidate general election. In our hypothetical election example, 42% of the Black VAP turn out to vote and 60% of the white VAP vote. This means that, for our illustrative election, there are 210 Black voters and 300 white voters. Further suppose that 96% of the Black voters supported their candidate of choice and 25% of the white voters cast their votes for this candidate (with the other 75% supporting her opponent in the election contest). Thus, in our example, Black voters cast 200 of their 210 votes for the Black-preferred candidate and their other 8 votes for her opponent; white voters cast 75 of their 300 votes for the Black-preferred candidate and 225 votes for their preferred candidate:

Thus, for example, if 39.3% of the Black population turned out and 48.3% of the white population turned out, B= .483 and A = .393, and M = .483/(.393+.483) = .483/.876 = .5513, therefore a Black VAP of 55.1% would produce an equal number of Black and white voters. (For a more in-depth discussion of equalizing turnout see Kimball Brace, Bernard Grofman, Lisa Handley and Richard Niemi, "Minority Voting Equality: The 65 Percent Rule in Theory and Practice," *Law and Policy*, 10 (1), January 1988.)

<sup>&</sup>lt;sup>21</sup> For an in-depth discussion of this approach to creating effective minority districts, see Bernard Grofman, Lisa Handley and David Lublin, "Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," *North Carolina Law Review*, volume 79 (5), June 2001.

				support	votes for	support	votes for
				for Black-	Black-	for white-	white-
				preferred	preferred	preferred	preferred
	VAP	turnout	voters	candidate	candidate	candidate	candidate
Black	500	0.42	210	0.96	202	0.04	8
White	500	0.60	300	0.25	75	0.75	225
			510		277		233

The candidate of choice of Black voters would receive a total of 277 votes (202 from Black voters and 75 from white voters), while the candidate preferred by white voters would receive only 233 votes (8 from Black voters and 225 from white voters). The Black-preferred candidate would win the election with 55.4% (277/500) of the vote in this hypothetical 50% Black VAP district. And the Black-preferred candidate would be successful despite the fact that the election was racially polarized and that Blacks turned out to vote at a lower rate than whites.

The candidate of choice of Black voters would still win the election by a very small margin (50.9%) in a district that is 45% Black with these same voting patterns:

				support	votes for	support	votes for
				for Black-	Black-	for white-	white-
				preferred	preferred	preferred	preferred
	VAP	turnout	voters	candidate	candidate	candidate	candidate
Black	450	0.42	189	0.96	181	0.04	8
White	550	0.60	330	0.25	83	0.75	248
			519		264		255

In a district with a 40% BVAP, however, the Black-preferred candidate would garner only 47.5% of the vote in this example.

#### Percent Black VAP needed to win recent general elections in Michigan Counties

Tables 5, 6, 7, and 8 utilize the results of the racial bloc voting analysis (see Appendix A) to indicate the percentage of vote a Black-preferred candidate would receive, given the turnout rates of Blacks and whites and the degree of black cohesion and white crossover voting for each

general election contests examined, in a 55%, 50%, 45%, 40% and 35% BVAP district in Wayne, Oakland, Genesee, and Saginaw Counties.<sup>22</sup> Because voting patterns vary by county, the percentage of votes the Black-preferred candidates would receive also varies. However, in no county is a 50% BVAP district required for the Black-preferred candidates to carry the district in a general election.

Table 5 reports the percentage of votes the Black-preferred candidate would receive in Wayne County, given voting patterns in previous general elections, The Black-preferred candidate would win every general election in a district with a BVAP of 35% or more, and would win with at least 54.4% of the vote – and in most election contests, a substantially higher percentage of the vote. The variation in the percentage of votes received by the Black-preferred candidate is due to the variation in the white vote rather than the Black vote because in in every election contest considered at least 95% of Black voters supported the Black-preferred candidate. The Black-preferred candidate of choice who would receive the lowest percentage of the vote would be African American Godfrey Dillard, a candidate for Secretary of State in 2014.

The voting patterns by race, and therefore the percent BVAP needed to win general elections is very similar in Genesee County, as shown in Table 6. Unlike Wayne County, however, the percentage of vote the Black-preferred candidate would garner in a 35% BVAP district in this county is declining slightly over the course of the decade – although the Black-preferred candidate would still win every general election in a 35% BVAP district.

In Oakland County, the Black-preferred candidate does not win every general election contest in a 35% BVAP district. It is not until the 40% BVAP column in Table 7 that the candidate of choice of Black voters wins every election examined. The most challenging election is again the race for Secretary of State in 2014. And even at 40% BVAP, Dillard would receive only 51.3% of the vote.

Saginaw County (Table 8) is similar to Oakland County in that it is only at 40% that the Black-preferred candidate wins every general election contest – and at 40% a couple of the contests are very close. Not only are the winning percentages for the Black-preferred candidates consistently lower in Saginaw County than they are for Oakland County, they have been decreasing over the course of the decade.

 $<sup>^{22}</sup>$  Tables 5, 6, 7, and 8 are generated using EI RxC estimates reported in the racial bloc voting tables in the Appendix.

		turnout rate for office and percent vote for black-preferred candidates					percent of percent of	•	percent of vote B-P	percent of vote B-P		
WAYNE COUNTY	candidate								cand would			
Percent Black VAP	indic	Black votes				\A/	hite votes	have	have	have	have	have
needed to win			Di	ack voles		vv		received if	received if	received if	received if	received if
	f В-Р	votes			votes			district was	district was	district was	district was	district was
	ie of	cast for			cast for			55% black	50% black	45% black	40% black	35% black
	race	office	B-P	all others	office	B-P	all others	VAP	VAP	VAP	VAP	VAP
GENERAL ELECTIONS												
2020 President	W	58.0	97.5	2.5	76.6	47.5	52.5	71.5	69.0	66.6	64.3	62.0
2020 US Senate	W	57.8	95.2	4.8	75.6	47.2	52.8	70.4	68.0	65.7	63.4	61.2
2018 Governor	W	33.2	97.0	3.0	63.2	53.5	46.5	70.5	68.5	66.6	64.8	63.1
2018 Secretary of State	W	33.1	97.0	3.0	62.2	53.6	46.4	70.7	68.7	66.8	65.0	63.3
2018 Attorney General	W	32.7	95.5	4.5	61.3	49.4	50.6	67.6	65.4	63.4	61.5	59.7
2018 US Senate	W	33.1	95.8	4.2	63.1	52.3	47.7	69.3	67.3	65.4	63.6	61.9
2016 President	W	57.0	98.4	1.6	64.0	39.7	60.3	70.3	67.4	64.4	61.6	58.7
2014 Governor	W	35.8	96.5	3.5	47.7	41.3	58.7	67.7	65.0	62.3	59.7	57.2
2014 Secretary of State	AA	35.5	96.8	3.2	46.1	36.8	63.2	65.9	62.9	60.0	57.2	54.4
2014 Attorney General	W	35.3	95.7	4.3		41.0	59.0	67.5	64.8	62.1	59.5	57.0
2014 US Senate	W	35.7	98.0	2.0	46.8	53.4	46.6	74.9	72.7	70.5	68.4	66.4
2012 President	AA	60.4	99.0	1.0	65.7	51.9	48.1	76.8	74.5	72.1	69.8	67.5
2012 US Senate	W	59.9	98.1	1.9	64.4	57.6	42.4	79.1	77.1	75.1	73.1	71.1

Table 5: Percent BVAP Needed to Win, Wayne County

# Table 6: Percent BVAP Needed to Win, Genesee County

		turnout r	ate for off	fice and pe	ercent vote		-preferred andidates	percent of vote B-P				
GENESEE COUNTY	ate								cand would			
Percent Black VAP	candidate							have	have	have		have
needed to win	car		BI	ack votes		W	hite votes	received if				received if
	ЪР	votes			votes			district was				
	ď							55% black	50% black	45% black		35% black
	race	cast for	рр	all athem	cast for	חח	all athers					
	6	office	B-P	all others	office	B-P	all others	VAP	VAP	VAP	VAP	VAP
GENERAL ELECTIONS												
2020 President	W	53.0	96.1	3.9	79.6	42.1	57.9	66.3	63.7	61.1	58.7	56.4
2020 US Senate	W	56.6	95.0	5.0	78.7	43.5	56.5	67.6	65.0	62.6	60.2	57.9
2018 Governor	W	45.1	95.3	4.7	59.8	46.2	53.8	69.8	67.3	64.9	62.6	60.4
2018 Secretary of State	W	44.9	95.2	4.8	58.6	48.0	52.0	70.8	68.5	66.2	64.0	61.8
2018 Attorney General	W	44.6	94.1	5.9	58.4	41.1	58.9	66.7	64.0	61.5	59.0	56.5
2018 US Senate	W	45.1	95.2	4.8	59.6	45.8	54.2	69.5	67.1	64.7	62.4	60.1
2016 President	W	59.0	96.4	3.6	67.3	37.4	62.6	67.9	65.0	62.0	59.2	56.3
2014 Governor	W	35.8	95.8	4.2	47.5	51.8	48.2	72.9	70.7	68.6	66.5	64.5
2014 Secretary of State	AA	35.9	95.6	4.4	46.1	46.2	53.8	70.3	67.8	65.4	63.1	60.8
2014 Attorney General	W	35.9	95.6	4.4	45.5	45.2	54.8	69.9	67.4	65.0	62.6	60.2
2014 US Senate	W	36.1	95.6	4.4	47.1	58.6	41.4	76.5	74.7	72.9	71.1	69.4
2012 President	AA	61.0	97.6	2.4	68.4	53.7	46.3	76.6	74.4	72.2	70.1	67.9
2012 US Senate	W	60.7	96.7	3.3	67.5	60.2	39.8	79.3	77.5	75.7	73.9	72.1

		turnout rate for office and percent vote for black-preferred candidates					percent of vote B-P	percent of vote B-P	percent of vote B-P		percent of vote B-P	
OAKLAND COUNTY Percent Black VAP	candidate							cand would	cand would	cand would	cand would	
	andic	Black votes			White votes			have	have	have	have	have
needed to win								received if	received if	received if	received if	received if
	e of B-P	votes			votes			district was	district was	district was	district was	district was
		cast for			cast for			55% black	50% black	45% black	40% black	35% black
	race	office	B-P	all others	office	B-P	all others	VAP	VAP	VAP	VAP	VAP
GENERAL ELECTIONS												
2020 President	W	71.6	93.4	6.6	86.4	45.9	54.1	69.8	67.4	65.1	62.8	60.6
2020 US Senate	W	71.4	92.1	7.9	85.4	43.5	56.5	68.1	65.6	63.2	60.9	58.6
2018 Governor	W	53.2	94.1	5.9	68.8	47.4	52.6	70.1	67.8	65.5	63.3	61.1
2018 Secretary of State	W	53.1	94.2	5.8	67.7	47.5	52.5	70.4	68.0	65.8	63.5	61.4
2018 Attorney General	W	52.5	93.8	6.2	67.0	43.0	57.0	67.9	65.3	62.8	60.4	58.1
2018 US Senate	W	53.2	93.0	7.0	68.7	45.5	54.5	68.6	66.2	63.9	61.7	59.5
2016 President	W	65.6	95.1	4.9	73.5	39.1	60.9	68.3	65.5	62.7	60.0	57.3
2014 Governor	W	46.3	94.8	5.2	54.6	30.6	69.4	63.3	60.1	56.9	53.8	50.7
2014 Secretary of State	AA	45.9	94.6	5.4	53.1	26.4	73.6	61.4	58.0	54.7	51.3	48.1
2014 Attorney General		45.8	94.1	5.9	52.6	32.9	67.1	64.5	61.4	58.4	55.4	52.4
2014 US Senate	W	46.5	95.0	5.0	53.7	46.7	53.3	71.5	69.1	66.7	64.4	62.1
2012 President	AA	68.9	95.7	4.3	75.7	42.1	57.9		67.6	65.0		59.7
2012 US Senate	W	67.8	95.8	4.2	74.0	47.6	52.4	73.1	70.6	68.3	65.9	63.5

# Table 7: Percent BVAP Needed to Win, Oakland County

# Table 8: Percent BVAP Needed to Win, Saginaw County

		turnout rate for office and percent vote for black-preferred candidates							percent of vote B-P		•	
SAGINAW COUNTY	date							cand would	cand would	cand would	cand would	cand would
Percent Black VAP	E E	Black votes			White votes			have	have	have	have	have
needed to win								received if	received if	received if	received if	received if
		votes			votes			district was	district was			district was
	race of	cast for			cast for			55% black	50% black	45% black	40% black	35% black
	шa	office	B-P	all others	office	B-P	all others	VAP	VAP	VAP	VAP	VAP
GENERAL ELECTIONS												
2020 President	W	48.6	95.3	4.7	79.6	36.3	63.7	61.5	58.7	56.0	53.4	50.9
2020 US Senate	W	48.4		6.2	78.7	37.5		61.7	58.9	56.3	53.9	51.5
2018 Governor	W	37.7	93.6		63.0	40.9		63.2	60.6	58.2	55.9	53.7
2018 Secretary of State	W	38.0		6.3	61.4	39.2		62.7	60.0	57.5	55.1	52.8
2018 Attorney General	W	37.6	93.4	6.6	61.0	33.3	66.7	59.1	56.2	53.4	50.8	48.3
2018 US Senate	W	37.8	93.5	6.5	62.8	39.3	60.7	62.3	59.7	57.2	54.8	52.6
2016 President	W	52.3	95.0	5.0	70.2	30.6	69.4	61.3	58.1	55.0	52.0	49.0
2014 Governor	W	32.7	94.1	5.9	50.8	42.2	57.8	65.1	62.5	60.1	57.8	55.6
2014 Secretary of State	AA	32.6	94.4	5.6	49.2	36.3	63.7	62.3	59.5	56.7	54.1	51.6
2014 Attorney General	W	32.4	94.1	5.9	50.1	32.6	67.4	59.8	56.8	53.9	51.1	48.5
2014 US Senate	W	32.7	94.1	5.9	50.1	50.6	49.4	69.9	67.8	65.7	63.8	61.9
2012 President	AA	56.2	95.7	4.3	70.3	42.9	57.1	69.0	66.4	63.8	61.3	58.8
2012 US Senate	W	55.7	95.4	4.6	68.7	52.3	47.7	73.8	71.6	69.5	67.4	65.4

It is important to remember that winning office in the United States usually requires winning two elections: a primary and a general election. The tables above consider only general election contests. Producing a comparable set of tables for Democratic primaries is not possible. First, there was only one statewide Democratic primary – the 2018 primary contest for Governor. There were three candidates competing in this election and because 50% of the vote was not required to win the election, a mathematical equation setting the percentage needed to win 50% of the vote does not work. Second, Black voters were not cohesive in support of any one of these three candidates. In fact, the candidate preferred by even the plurality of Black voters was not the same in the four counties examined. Drawing a district that Black-preferred candidate could win this primary is not possible when there is no Black-preferred candidate.

In areas where most of the white voters are likely to vote in Republican primaries, the inability to calculate the percent needed to win in Democratic primaries is not particularly important. Black voters will dominate the Democratic primary unless they make up only a very small portion of the voters in the district. However, in the counties examined in Michigan, many white voters elect to participate in the Democratic primary, especially in Wayne County. As the percentage Black VAP of proposed districts decreases, it may become more challenging for Black-preferred candidates to win not only the general election but the Democratic primary – but only if voting in Democratic primaries is racially polarized. Unfortunately, it is not possible to ascertain exactly how much more difficult it would be – or even if it would be more difficult – given the lack of Democratic primary election data.

## B. Threshold of Representation in the Current State House and Senate Districts

A useful check on the percent needed to win estimates found in Tables 5-8 that can be done prior to drawing any districts is to produce what have been referred to by some political scientists as "threshold of representation" tables. These tables are designed to identify the lowest minority percentage above which minority candidates are consistently elected. Tables 9 and 10, below, report the BVAP of the current Michigan state house and senate districts with over 20% BVAP, and indicate the race and party of the candidate elected to represent the district.<sup>23</sup> Sorted

<sup>&</sup>lt;sup>23</sup> There are no African American state senators or representatives elected from districts that are less than 20% Black in VAP. However, there are other minority candidates (Hispanic, Asian, and Middle Eastern) elected to state house districts with considerably less than 20% BVAP.

by the percent BVAP, the tables can sometimes provide evidence of a clear breakpoint between those districts that are probably electing candidates of choice and those that are not.<sup>24</sup>

An examination Table 9 indicates that every Michigan state house district with a BVAP of at least 35% elects a minority representative to the state house. In fact, every district with a BVAP of more than 26.53% elects a minority to office with the exception of District 49 in Genesee County. And the racial bloc voting analysis of House District 49 indicates that the white incumbent, John Cherry, is the candidate of choice of Black voters, even in the 2018 Democratic primary when he faced several African American candidates.

State House District	Total VAP	Black VAP	Percent Black VAP	Name	Party	Race	Percent of Vote 2020
7	60347	57256	94.27%	Helena Scott	D	Black	93.00%
8	62448	58042	92.42%	Stephanie A. Young	D	Black	96.70%
3	54130	49536	90.93%	Shri Thanedar	D	Asian	93.30%
9	62529	46806	74.22%	Karen Whitsett	D	Black	94.20%
10	69209	46977	67.41%	Mary Cavanagh	D	Hispanic	84.80%
1	59788	38993	64.76%	Tenisha R. Yancey	D	Black	75.80%
35	78306	49325	62.50%	Kyra Harris Bolden	D	Black	82.90%
34	49491	30419	60.96%	Cynthia R. Neeley	D	Black	86.70%
2	57031	33142	57.70%	Joe Tate	D	Black	74.10%
5	49290	27190	54.12%	Cynthia A. Johnson	D	Black	93.40%
6	67505	36182	52.86%	Tyrone Carter	D	Black	100.00%
4	68749	32761	47.27%	Abraham Aiyash	D	ME	89.80%
29	72319	26621	36.04%	Brenda Carter	D	Black	72.90%
95	58640	21320	35.50%	Amos O'Neal	D	Black	70.10%
49	64844	19308	29.47%	John D. Cherry	D	White	68.90%
54	72426	21212	28.79%	Ronnie Peterson	D	Black	77.70%
12	73883	20207	26.97%	Alex Garza	D	Hispanic	62.40%
11	73586	19760	26.53%	Jewell Jones	D	Black	65.20%
92	66135	16957	25.34%	Terry J. Sabo	D	White	65.30%
27	73337	18051	24.35%	Regina Weiss	D	White	74.40%
16	74617	17556	23.25%	Kevin Coleman	D	White	62.50%
75	76956	18127	22.56%	David LaGrand	D	White	74.60%
68	71672	16808	22.44%	Sarah Anthony	D	Black	75.90%
18	75251	16519	21.76%	Kevin Hertel	D	White	60.30%
22	68758	14588	21.00%	Richard Steenland	D	White	59.90%
60	74176	15887	20.97%	Julie M. Rogers	D	White	71.40%

 Table 9: Threshold of Representation for State House Districts, 2021

<sup>&</sup>lt;sup>24</sup> Without the confirmation provided by a racial bloc voting analysis, it could conceivably be the case that the minority legislator is not the candidate of choice of minority voters.

Interpreting Table 10, for the Michigan state senate, is less straightforward. The four districts with BVAP percentages over 47% elect African Americans to office. However, Stephanie Chang, the state senator in District 1, which is 44.68% BVAP, was not the candidate of choice of Black voters in the 2018 Democratic primary, though she is the candidate of choice in the general election.

State Senate District	Total VAP	Black VAP	Percent Black VAP	Name	party	race	Percent of vote 2018
5	203828	111418	54.25%	Betty Alexander	D	Black	77.4%
2	169357	86961	50.82%	Adam Hollier	D	Black	75.7%
3	186758	90737	48.14%	Sylvia Santana	D	Black	81.8%
4	180199	85691	47.00%	Marshall Bullock	D	Black	78.3%
1	193087	87075	44.68%	Stephanie Chang	D	Asian	72.0%
11	229870	82336	35.48%	Jeremy Moss	D	White	76.7%
27	175918	54071	30.42%	Jim Ananich	D	White	71.2%
9	219325	50800	22.95%	Paul Wojno	D	White	65.9%
6	217734	46997	21.29%	Erika Geiss	D	Black	61.4%

 Table 10: Threshold of Representation for State Senate Districts, 2021

#### C. Recompiled Election Results

As noted above, once draft districts have been drawn, there is a second approach available for ascertaining whether a proposed district is likely to provide minority voters with an opportunity to elect their candidates of choice to legislative or congressional office. This approach relies on recompiling election results from previous elections to see if the candidates preferred by minority voters would win in the draft district. This process entails (1) identifying "bellwether" elections, (2) disaggregating the precinct level results for these elections down to the census block level and then (3) re-aggregating the results up to conform to proposed district boundaries to determine if the minority-preferred candidate would win. This recompilation can only be done for elections that cover a broad enough area to encompass all of the draft districts, hence only statewide elections can be used for this exercise. "Bellwether" elections are statewide elections that included minority candidates who were the candidates of choice of minority voters but were not supported by white voters.

Although there were six statewide general elections that included African American candidates or running mates, the African American was the candidate of choice of Black voters in only four of these contests: U.S. President in 2012 and 2020, Secretary of State in 2014, and Governor in 2018. All of these contests were racially polarized statewide, but only the 2014 Secretary of State contest was polarized in all four counties. This election contest was also the contest in which the candidate strongly preferred by Black voters garnered the least amount of white crossover votes. Thus, while recompiled elections results for all four elections provide important information for determining if a proposed district would provide Black voters with an opportunity to elect their preferred candidates in general elections, the single best "bellwether" contest for that purpose is the vote for Godfrey Dillard in 2014.

The redistricting software used by MICRC automatically included recompiled election results for all draft districts for all four of these elections – in fact, it included this information for every statewide general election conducted between 2012 and 2020. Ascertaining if the African American candidates of choice of Black voters, especially Dillard in 2014, carried a proposed district provides evidence that the proposed district in a draft plan will provide Black voters with an opportunity to elect their candidates of choice in general elections.

The redistricting software also reported recompiled election results for the one statewide Democratic primary conducted in the past decade: the 2018 race for Governor. However, because there were three candidates and because Black voters were not cohesive in supporting any of these candidates, these recompiled results are not particularly useful in ascertaining whether a proposed district would provide minority voters with an opportunity to elect their preferred candidates in Democratic primaries.

# **III. Measuring Partisan Fairness in Redistricting Plans**

According to 13(d) of Article IV, Section 6 of the Michigan State Constitution: "Districts shall not provide a disproportionate advantage to any political party. A disproportionate advantage to a political party shall be determined using accepted measures of partisan fairness." A number of objective mathematical measures have been developed by social scientists and mathematicians to determine if an existing or proposed redistricting map disadvantages one political party relative to the other. Using these measures, we can compare an existing or proposed redistricting map to a large set of other possible maps to determine if the proposed map exhibits more or less political bias. The maps used for comparative purposes can be previous redistricting maps used in the state, or the redistricting maps of other states, or they can be computer simulated maps.

I proposed incorporating three measures of partisan fairness measures into the redistricting software used by the MICRC to draw redistricting maps. The reasons for my choice were as follows:

- The measures are easy to understand and straightforward to calculate. They produce scores that indicate both the direction and the magnitude of any political bias in the redistricting map.
- Because I easily calculated the scores for each of these measures in excel, I knew it would be possible to incorporate an automated report function into the redistricting software that could provide these scores for any draft plans drawn.
- Although these three measures have only recently been developed, they have all have been introduced and accepted by federal and state courts as useful tools for determining if a redistricting map is politically fair.

The three partisan fairness measures I selected are the lopsided margins test, the mean-median difference, and the efficiency gap.

In addition to these three measures, a simple metric for indicating whether a redistricting plan is fair is to compare the proportion of the statewide vote each party receives to the proportion of the districts each party wins or is likely to win under the proposed plan. The proportionality of a redistricting plan is calculated by subtracting the percentage of votes won by the party from the percentage of seats that party won (or would win) in congressional and state

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legislative elections. So, for example, if Party A won 52.3% of the vote statewide but only won 44.7% of the seats in the state senate, the proportionality bias would be 44.7 - 52.3 or -7.6 in favor of Party B.

Each of these measures use historical election results to evaluate the partisan fairness of redistricting plans. However, in the case of proposed districts, previous election results must be reconfigured to conform to the proposed district boundaries to evaluate the partisan fairness of the proposed plans.<sup>25</sup> A composite election index was constructed using the statewide general elections between 2012 and 2020 – all 13 of the election contests included in the GIS redistricting database and analyzed in the racial bloc voting analysis. The composite index was weighted to give each election cycle equal weight in the index. However, the partisan fairness report function in the redistricting software was designed so that any of the individual 13 elections could be substituted for the composite index in calculating the partisan fairness scores.

# A. Lopsided Margins Test

In a perfectly fair plan – at least in a state in which the two political parties are competitive (closely divided) – we would expect a mix of districts, some strongly partisan districts, some moderately reliable districts, and some tossups – but each party would have a roughly similar mix. If one party has a smaller number of victories with larger margins of victory that the other party, this is an indication that one party is being disfavored over the other in the map. This pattern of outcomes can be quantified by sorting the districts into two groups, by winning party. Each party's winning vote share can then be compared to see if one party has significantly higher margin of victories than the other.<sup>26</sup> The following is an example of how this is calculated:

<sup>&</sup>lt;sup>25</sup> Both the efficiency gap and the mean-median difference have been used to evaluate computer simulated alternative redistricting maps for comparative purposes in partisan gerrymandering challenges. Election results for select statewide elections were reconfigured to determine how the candidates in these elections would have fared in the alternative districts.

<sup>&</sup>lt;sup>26</sup> This measure was first discussed in Sam Wang, "Three Tests for Practical Evaluation of Partisan Gerrymandering," *Stanford Law Journal*, 16, June 2016. Available at: <u>https://www.stanfordlawreview.org/print/article/three-tests-for-practical-evaluation-of-partisan-gerrymandering/</u>)

				Percent	of Votes	Party	Wins
District	Party A	Party B	<b>Total Votes</b>	Party A	Party B	Party A	Party B
1	279	120	399	69.9%	30.1%	69.9%	
2	172	198	370	46.5%	53.5%		53.5%
3	167	192	359	46.5%	53.5%		53.5%
4	148	212	360	41.1%	58.9%		58.9%
5	185	180	365	50.7%	49.3%	50.7%	
6	139	193	332	41.9%	58.1%		58.1%
7	169	201	370	45.7%	54.3%		54.3%
8	179	206	385	46.5%	53.5%		53.5%
9	234	99	333	70.3%	29.7%	70.3%	
10	178	199	377	47.2%	52.8%		52.8%
TOTAL	1850	1800	3650	50.7%	49.3%	63.6%	54.9%

Party A in the example is winning districts with a much higher average vote (63.6%) than Party B (54.9%) – and the difference between the two percentages is 8.7 (63.6 - 54.9). This indicates that Party A supporters are packed into a few districts that it wins by large margins. Party B, on the other hand, is winning substantially more districts with substantially lower vote margins.

### **B.** Mean-Median Difference

Comparing a dataset's mean and median is a common statistical analysis used to assess how skewed the dataset is - if the dataset is balanced, the mean will be very close in value to its median. As a dataset becomes more skewed, the mean and median begin to diverge; looking at the difference between the two can be used determine the extent to which the data is skewed.

Based on this principle, the mean-median district vote share difference compares a party's mean district vote share to its median district vote share:<sup>27</sup>

- Mean = average party vote share across all districts
- Median = party vote share in the median district when districts are sorted on share of party vote

<sup>27</sup> This approach to ascertaining political bias in redistricting maps was proposed by Michael D. McDonald and Robin Best in "Unfair Partisan Gerrymanders in Politics and Law: A Diagnostic Applied to Six Cases," *Election Law Journal* 14(4), 2015 (available at: <u>https://www.liebertpub.com/doi/abs/10.1089/elj.2015.0358</u>). It was further quantified by Wang (see full citation above). The difference between the mean and median vote shares provides a measure of whether the redistricting map produces skewed election results. The following is an example of how this is calculated:

Party A	Percentages
	41.1%
	41.9%
	45.7%
	46.5%
	46.5%
	46.5%
	47.2%
	50.7%
	69.9%
	70.3%
District median percentage	46.5%
Statewide mean percentage	50.7%
Mean-Median Difference	4.2%

In this example, Party A received 50.7% of the statewide vote. Party A's median vote share (46.5%) is 4.2% lower than its mean vote share of 50.7%. This indicates that Party A must win more districts than Party B to win half of the seats – the redistricting map in skewed in favor of Party B. In fact, Party A would have had to win 54.2% (50.0 + 4.2) of the statewide vote to win 50% of the seats.

## C. Efficiency Gap

This measure, introduced by University of Chicago law professor Nick Stephanopoulos and Public Policy Institute of California research fellow Eric McGhee, looks at the number of "wasted votes" across districts.<sup>28</sup>

In any election, nearly 50 percent of votes are wasted: all votes cast for a losing candidate, and any votes cast for a winning candidate beyond the threshold needed to win (50 percent in a two-candidate contest). In a hypothetical map with perfect partian symmetry, both

<sup>&</sup>lt;sup>28</sup> Nicholas O. Stephanopoulos and Eric M. McGhee, "Partisan Gerrymandering and the Efficiency Gap," *University of Chicago Law Review*: Vol. 82 (2), 2015. Available at: https://chicagounbound.uchicago.edu/uclrev/vol82/iss2/4.

parties would waste the same number of votes. A large difference between the parties' wasted votes indicates one party is treated more favorably than the other by the redistricting map. This is because the plan packs and cracks one party's supporters more than the other party's supporters.

The efficiency gap is calculated by taking one party's total wasted votes in an election, subtracting the other party's total wasted votes, and dividing this by the total number of votes cast. It captures in a single number the extent to which district lines waste the two parties votes unequally.

Efficiency Gap = [Party A wasted votes] – [Party B wasted votes] total number of votes cast statewide

Example:

				Lost \	/otes	minimum	Surplus	s Votes	Total Was	otal Wasted Votes	
District	Party A	Party B	<b>Total Votes</b>	Party A	Party B	to win	Party A	Party B	Party A	Party B	
1	279	120	399	0	120	200	79	0	79	120	
2	172	198	370	172	0	185	0	13	172	13	
3	167	192	359	167	0	180	0	12	167	12	
4	148	212	360	148	0	180	0	32	148	32	
5	185	180	365	0	180	183	2	0	2	180	
6	139	193	332	139	0	166	0	27	139	27	
7	169	201	370	169	0	185	0	16	169	16	
8	179	206	385	179	0	193	0	13	179	13	
9	234	99	333	0	99	167	67	0	67	99	
10	178	199	377	178	0	189	0	10	178	10	
TOTAL	1850	1800	3650	1152	399		148	123	1300	522	

In this example, supporters of Party A cast 1152 votes for losing candidates and 148 surplus votes – votes beyond what was necessary to elect Party A candidates. Supporters of Party B, on the other hand, cast only 399 of their votes for losing candidates and 522 surplus votes. Adding together these two sets of votes, Party A had a total of 1300 wasted votes; Party B had a total of only 522 votes. The efficiency gap is therefore calculated as 21.3% (1300-522/3650 = 778/3650 = .213). This efficiency gap in favor of Party B can be interpreted as the percentage of seats Party B won above what would be expected in a politically fair or neutral map.

#### **D.** Court Acceptance of these Measures

These three measures have all been developed within the last decade and therefore do not have a long history of consideration by the courts. However, they have been introduced recently in the context of partisan gerrymandering challenges. While recognizing each of the measures have some disadvantages, the courts in each instance relied on these measures (in addition to other measures introduced) to find the plans before them were politically biased towards one of the political parties at the expense of the other.<sup>29</sup>

<sup>&</sup>lt;sup>29</sup> Examples of court cases relying on at least one of the measures of political fairness described in this report include: *League of Women Voters of Michigan v. Benson*, in which the federal court held the congressional and state legislative plans in Michigan to be an unconstitutional gerrymander; *Ohio A. Philip Randolph Institute v. Householder*, which held the Ohio congressional map to be an unconstitutional partisan gerrymander; *League of Women Voters of Pennsylvania v. Commonwealth of Pennsylvania* in which the State Supreme Court held the Pennsylvania congressional districts to be in violation of the Pennsylvania Constitution; *Whitford v. Gill* in which the federal court determined the Wisconsin state assembly districts were unconstitutional; *Common Cause v. Rucho* in which the federal court found the North Carolina decision, along with the Maryland case, *Lamone v. Benisek*, was later overturned by the U.S. Supreme Court on unrelated grounds, but grounds that served to moot all of the federal decisions discussed above. However, in a separate challenge before the North Carolina Superior Court, *Common Cause v. Lewis*, the court held that the state legislative districts violated the North Carolina State Constitution.

# **APPENDIX** A

State	wide			Es	timates for	Black Voters	5	E	stimates for V	White Voter	S
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	ER	El 2x2	EI RxC
2012 General									2		
U.S. President									5 P		
Barack Obama	D	AA	54.2%	98.6	106.5	99.2	97.8	44.0	42.7	43.3	44.5
Mitt Romney	R	W	44.7%	1.2	-6.6	0.4	1.2	54.8	55.9	55.3	54.6
others				0.2	0.2	1.1	1.1	1.3	13.8	1.2	1.0
votes for office				62.1	57.3	59.1	59.1	69.2	66.1	68.1	68.1
U.S. Senate											
Debbie Stabenow	D	W	58.8%	97.3	103.8	99.2	96.8	50.1	49.4	49.1	50. <del>6</del>
Peter Hoekstra	R	W	38.0%	1.2	-5.3	0.5	1.1	46.5	46.9	46.9	46.2
others				1.5	1.5	1.7	2.0	3.4	3.7	3.6	3.2
votes for office				61.6	56.9	58.8	58.8	68.0	64.9	66.9	66.9
2014 General											
Governor											
Mark Schauer	D	W	46.9%	94.4	101.3	97.4	95.7	38.7	37.1	36.2	38.4
Rick Snyder	R	W	50.9%	4.8	-2.2	2.1	2.5	58.9	60.2	61.3	59.4
others				0.8	0.8	1.4	1.8	2.4	2.7	2.5	2.1
votes for office				36.9	31.6	35.1	35.1	49.6	46.7	49.1	49.1
Secretary of State											
Godfrey Dillard	D	AA	42.9%	94.4	102.0	97.6	95.8	33.8	31.9	31.3	33.5
Ruth Johnson	R	W	53.5%	4.2	-3.3	1.5	2.1	62.3	63.9	64.7	62.9
others				1.4	1.3	1.2	2.1	3.9	4.3	4.0	3.6
votes for office				36.5	31.3	34.8	34.8	48.3	45.4	47.8	47.8
Attorney General											
Mark Totten	D	W	44.2%	93.3	101.3	97.0	95.2	34.7	32.8	33.0	35.0
Bill Schuette	R	W	52.1%	5.2	-2.9	2.1	2.5	61.3	62.8	62.9	61.2
others				1.5	1.6	1.2	2.2	4.0	4.4	4.1	3.8
votes for office				36.4	31.2	34.6	34.6	48.3	45.5	47.8	47.8

State	wide			Est	imates for	Black Voters	5	E	stimates for V	White Voter	S
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	<b>ER</b>	El 2x2	EI RxC
U.S. Senate									2		
Gary Peters	D	W	54.6%	96.8	103.9	99.1	96.5	46.2	44.8	45.1	47.3
Terry Lynn Land	R	W	41.3%	2.0	-5.0	0.5	1.6	49.4	50.3	50.2	48.5
others				1.2	1.1	1.0	2.0	4.5	4.8	4.6	4.2
votes for office				36.8	31.5	35.0	35.0	48.9	46.1	48.5	48.5
2016 General											
U.S. President											
Hillary Clinton	D	W	47.3%	96.8	106.3	98.9	97.3	33.6	30.2	32.0	34.3
Donald Trump	R	W	47.5%	2.0	-7.4	0.3	1.1	61.0	63.9	61.6	60.0
others				1.2	1.2	0.8	1.6	5.4	6.0	6.2	5.7
votes for office				58.9	53.6	54.1	54.1	68.2	65.8	67.2	67.2
2018 General											
Governor											
Whitmer/Gilchrist	D	W/AA	53.3%	95.6	104.3	98.6	95.3	41.1	38.9	40.6	44.8
Schuette/Lyons	R	W/W	43.8%	2.5	-6.4	0.6	1.8	56.0	57.9	56.2	52.8
others				1.9	2.1	2.6	2.9	2.9	3.2	2.9	2.5
votes for office				36.6	31.6	35.2	35.2	61.9	61.7	63.3	63.3
Secretary of State											
Jocelyn Benson	D	W	52.9%	95.7	104.7	98.7	95.6	40.1	38.0	39.9	43.9
Mary Treder Lang	R	W	44.0%	2.4	-6.6	0.6	1.8	56.5	58.3	56.4	53.1
others				1.9	1.9	1.7	2.7	3.4	3.7	3.5	2.9
votes for office				36.4	31.6	35.1	35.1	60.9	60.7	62.2	62.2
Attorney General											
Dana Nessel	D	W	49.0%	94.1	103.3	97.7	94.4	36.1	33.6	35.3	39.4
Tom Leonard	R	W	46.3%	2.4	-6.9	0.5	1.7	59.0	61.1	59.3	55.9
others				3.5	3.6	3.0	3.9	4.9	5.3	5.2	45.9
votes for office				36.0	31.2	34.6	34.6	60.4	60.1	61.7	61.7

Statev	wide			Es	stimates for	Black Voter	s	E	stimates for	White Voter	S
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	ĕR	El 2x2	EI RxC
U.S. Senate									2		
Debbie Stabenow	D	W	52.3%	93.9	102.5	97.5	94.3	40.3	38.1	39.5	43.7
John James	R	AA	45.8%	3.8	-5.1	1.1	2.0	57.8	59.9	58.4	55.1
others				2.3	2.5	2.4	3.7	1.9	2.0	1.7	1.2
votes for office				36.5	31.5	35.0	35.0	61.8	61.6	63.1	63.1
2020 General											
U.S. President											
Joseph Biden	D	W	50.6%	95.4	105.0	98.4	96.2	37.0	34.7	36.9	40.0
Donald Trump	R	W	47.8%	3.8	-5.4	1.1	1.9	61.5	63.6	61.2	59.1
others				0.8	0.8	1.3	1.9	1.6	1.7	1.6	1.0
votes for office				61.2	53.3	55.2	55.2	79.1	77.7	79.0	79.0
U.S. Senate											
Gary Peters	D	W	49.9%	93.4	102.3	97.2	93.9	36.9	34.8	36.4	39.4
John James	R	AA	48.2%	3.8	-5.6	1.1	1.7	61.5	63.5	61.7	59.8
others				2.7	3.1	3.7	4.4	1.6	1.6	1.4	0.9
votes for office				59.9	53.0	55.0	55.0	78.3	76.8	78.1	78.1

County: Genesee			Es	timates for	Black Voters	;	Estimates f White Voters				
	Party	Race	HP	ER	El 2x2	EI RxC	НР	ER 🔄	El 2x2	EI RxC	
2012 General								Ň			
U.S. President								S			
Barack Obama	D	AA	99.0	107.0	99.5	97.6	52.9	52.7	52.8	53.7	
Mitt Romney	R	W	0.7	-6.7	0.5	1.3	46.1	46.0	46.0	45.5	
others			0.2	0.3	0.7	1.1	1.1	1.3	0.9	0.8	
votes for office			64.1	57.4	61.0	61.0	70.1	65.1	68.4	68.4	
U.S. Senate											
Debbie Stabenow	D	W	97.8	103.9	99.7	96.7	59.7	59.8	59.4	60.2	
Peter Hoekstra	R	W	0.9	-5.3	0.5	1.3	36.7	36.3	36.5	35.2	
others			1.3	1.3	1.1	2.0	3.6	3.9	3.8	32.2	
votes for office			63.7	57.3	60.7	60.7	69.2	64.4	67.5	67.5	
2014 General											
Governor											
Mark Schauer	D	W	97.1	104.2	99.3	95.8	50.7	50.5	49.5	51.8	
Rick Snyder	R	W	2.0	-5.0	0.6	2.3	46.5	46.5	47.5	45.8	
others			0.9	0.9	1.1	1.9	2.8	3.0	2.8	2.4	
votes for office			37.6	31.4	35.8	35.8	48.8	44.6	47.5	67.5	
Secretary of State											
Godfrey Dillard	D	AA	96.1	104.3	99.0	95.6	45.3	45.8	44.2	46.2	
Ruth Johnson	R	W	2.6	-5.3	0.3	2.2	50.7	50.5	51.5	50.2	
others			1.3	1.1	1.1	2.2	4.1	4.3	4.1	3.6	
votes for office			37.4	31.5	35.9	35.9	47.4	43.3	46.1	46.1	
Attorney General		┝─╊									
Mark Totten	D	W	95.2	103.4	98.7	95.6	44.2	43.9	43.3	45.2	
Bill Schuette	R	W	3.7	-4.4	0.8	2.4	52.6	52.6	53.3	51.9	
others			1.1	1.1	0.9	2.0	3.3	3.5	3.3	2.9	
votes for office			37.3	31.4	35.9	35.9	46.8	42.8	45.5	45.5	

County: Genesee			Es	timates for	Black Voters	5	Estimates f White Voters				
	Party	Race	HP	ER	El 2x2	EI RxC	НР	ER 🔄	El 2x2	EI RxC	
U.S. Senate								Ň			
Gary Peters	D	W	97.2	103.9	99.5	95.6	57.0	57.0	56.4	58.6	
Terry Lynn Land	R	W	1.7	-4.8	0.6	2.2	38.7	38.3	39.0	37.5	
others			1.2	0.9	0.8	2.2	4.3	4.6	4.4	3.9	
votes for office			37.6	31.5	36.1	36.1	48.3	44.3	47.1	47.1	
2016 General											
U.S. President											
Hillary Clinton	D	W	97.5	106.0	99.5	96.4	37.8	34.5	35.3	37.4	
Donald Trump	R	W	1.5	-7.0	0.4	1.7	57.0	59.4	58.5	57.1	
others			1.0	1.1	1.0	1.9	5.2	6.1	6.1	5.5	
votes for office			70.6	59.8	59.0	59.0	70.9	63.5	67.3	67.3	
2018 General											
Governor											
Whitmer/Gilchrist	D	W/AA	96.2	103.6	99.2	95.3	46.7	45.5	45.8	46.2	
Schuette/Lyons	R	W/W	2.2	-5.5	0.2	2.0	50.5	50.9	50.5	50.8	
others			1.6	1.9	1.7	2.7	2.8	3.6	3.2	3.0	
votes for office			54.2	43.5	45.1	45.1	62.6	57.0	59.8	59.8	
Secretary of State											
Jocelyn Benson	D	W	96.5	103.7	99.2	95.2	45.7	44.7	44.9	48.0	
Mary Treder Lang	R	W	2.0	-5.8	0.3	2.0	50.9	51.2	50.8	48.7	
others			1.5	2.1	1.4	2.8	3.4	4.2	3.7	3.4	
votes for office			53.9	43.5	44.9	44.9	61.3	55.7	58.6	58.6	
Attorney General		┝──┨									
Dana Nessel	D	W	94.5	102.3	98.6	94.1	39.9	37.6	37.9	41.1	
Tom Leonard	R	W	2.3	-5.8	0.6	2.0	55.3	56.3	55.9	53.7	
others			3.2	3.5	3.8	3.9	47.7	6.0	5.1	5.1	
votes for office			53.7	43.2	44.6	44.6	61.0	55.6	58.4	58.4	

County: Genesee			Est	timates for	Black Voters	5	Est	timates f	White Voter	s
	Party	Race	HP	ER	El 2x2	EI RxC	НР	ER 🔄	El 2x2	EI RxC
U.S. Senate								Ň		
Debbie Stabenow	D	W	95.3	103.2	98.9	95.2	43.8	42.6	42.8	45.8
John James	R	AA	3.0	-5.3	0.7	2.1	54.3	54.8	54.6	52.6
others			1.7	2.2	1.7	2.8	1.9	2.6	1.8	1.6
votes for office			54.2	43.8	45.1	45.1	62.4	56.8	59.6	59.6
2020 General										
U.S. President										
Joseph Biden	D	W	96.5	104.4	99.3	96.1	39.9	37.7	38.6	42.1
Donald Trump	R	W	3.0	-5.1	0.5	2.1	58.7	60.5	59.6	56.7
others			0.5	0.7	0.9	1.8	1.4	1.8	1.8	1.2
votes for office			67.3	54.8	53.0	53.0	81.5	75.4	79.6	79.6
U.S. Senate										
Gary Peters	D	W	95.1	103.0	98.9	95.0	41.1	39.7	40.1	43.5
John James	R	AA	3.2	-5.3	0.7	1.8	57.4	58.4	57.6	55.5
others			1.7	2.1	2.7	3.2	1.6	2.0	1.5	1.1
votes for office			67.1	54.8	56.6	56.6	80.6	74.4	78.7	78.7

County: Saginaw			E	stimates for	<b>Black Voters</b>	5	Estimates for White Voters				
	Party	Race	HP	ER	El 2x2	EI RxC	НР	ER 🔄	El 2x2	EI RxC	
2012 General								$\sim$			
U.S. President								U U			
Barack Obama	D	AA		114.3	99.5	95.7	41.6	39.2	41.1	42.9	
Mitt Romney	R	W		-14.8	0.4	2.5	57.0	59.1	57.1	55.9	
others				0.2	0.6	1.8	1.5	1.7	1.7	1.2	
votes for office				56.7	56.2	56.2	71.4	69.5	70.3	70.3	
U.S. Senate											
Debbie Stabenow	D	W		111.0	99.5	95.4	51.0	49.0	50.1	52.3	
Peter Hoekstra	R	W		-11.6	0.7	2.2	46.0	47.6	46.3	44.9	
others				0.7	0.0	2.4	2.9	3.3	3.3	2.8	
votes for office				56.3	55.7	55.7	69.9	67.7	68.7	68.7	
2014 General											
Governor											
Mark Schauer	D	W		11.2	99.6	94.1	41.1	38.4	39.1	42.2	
Rick Snyder	R	W		-12.3	0.5	3.0	56.3	58.9	58.1	55.7	
others				1.0	0.7	2.8	2.6	2.7	2.6	2.1	
votes for office				31.1	32.7	32.7	51.5	49.9	50.8	50.8	
Secretary of State											
Godfrey Dillard	D	AA		111.3	99.2	94.4	35.3	32.6	33.5	36.3	
Ruth Johnson	R	W		-12.5	0.5	2.8	60.5	63.0	62.0	59.9	
others				1.1	0.9	2.8	4.2	4.5	4.4	3.8	
votes for office				31.4	32.6	32.6	49.9	48.4	49.2	49.2	
Attorney General											
Mark Totten	D	W		110.7	98.6	94.1	32.1	28.9	29.8	32.6	
Bill Schuette	R	W		-12.1	0.5	2.9	65.2	68.2	67.2	65.1	
others				1.3	1.1	3.0	2.7	3.0	2.9	23.3	
votes for office				31.0	32.4	32.4	50.8	49.3	50.1	50.1	

County: Saginaw			E	stimates for	Black Voters	;	Esti	mates for V	White Voters	5
	Party	Race	HP	ER	El 2x2	EI RxC	HP	ER 🔄	El 2x2	EI RxC
U.S. Senate								i.		
Gary Peters	D	W		110.3	99.5	94.1	48.3	46.7	47.6	50.6
Terry Lynn Land	R	W		-10.6	0.7	3.0	47.8	49.2	47.9	45.8
others				0.5	0.4	2.9	3.9	4.3	4.2	3.5
votes for office				31.2	32.7	32.7	50.8	49.2	50.1	50.1
2016 General										
U.S. President										
Hillary Clinton	D	W		116.7	99.6	95.0		25.1	28.1	30.6
Donald Trump	R	W		-17.2	0.5	2.5		69.0	66.1	64.0
others				0.4	0.0	2.5		5.8	5.6	5.4
votes for office				55.5	52.3	52.3		69.0	70.2	70.2
2018 General										
Governor										
Whitmer/Gilchrist	D	W/AA		112.4	99.4	93.6		34.8	36.4	40.9
Schuette/Lyons	R	W/W		-14.2	0.6	2.9		62.4	60.3	56.9
others				1.8	1.6	3.5		2.8	2.5	2.2
votes for office				38.9	37.7	37.7		61.5	63.0	63.0
Secretary of State										
Jocelyn Benson	D	W		113.3	99.6	93.7		33.6	35.4	39.2
Mary Treder Lang	R	W		-14.9	0.6	3.2		62.8	60.6	57.7
others				3.5	1.2	3.1		3.6	3.3	3.0
votes for office				39.7	38.0	38.0		60.0	61.4	61.4
Attorney General										
Dana Nessel	D	W		112.5	99.0	93.4		27.6	29.0	33.3
Tom Leonard	R	W		-15.5	0.5	2.6		66.8	64.6	61.7
others				3.0	2.1	4.0		5.6	5.5	5.0
votes for office				38.7	37.6	37.6		59.7	61.0	61.0

County: Saginaw			E	stimates for	Black Voters	5	E	stimates for	S	
	Party	Race	HP	ER	El 2x2	EI RxC	HP	ER 🔄	El 2x2	EI RxC
U.S. Senate								:2		
Debbie Stabenow	D	W		110.6	99.3	93.5		33.7	34.6	39.3
John James	R	AA		-13.0	0.8	2.9		64.5	63.0	59.6
others				2.4	2.2	3.6		1.8	1.8	1.2
votes for office				39.2	37.8	37.8		61.5	62.8	62.8
2020 General										
U.S. President										
Joseph Biden	D	W		114.2	99.0	95.3		29.3	32.0	36.3
Donald Trump	R	W		-14.9	0.6	2.7		69.0	66.2	62.6
others				0.6	1.1	2.0		1.6	1.5	1.1
votes for office				50.7	48.6	48.6		78.3	79.6	79.6
U.S. Senate										
Gary Peters	D	W		112.5	99.5	93.8		31.1	33.1	37.5
John James	R	AA		-14.7	0.6	3.0		67.3	65.0	61.6
others				2.1	2.8	3.2		1.5	1.2	0.9
votes for office				50.7	48.4	48.4		77.2	78.7	78.7

County: Oakland			Es	timates for	Black Voters	5	Esti	imates for \	White Voters	5
	Party	Race	HP	ER	El 2x2	EI RxC	НР	ER 🔄	El 2x2	EI RxC
2012 General								Ň		
U.S. President								S		
Barack Obama	D	AA	98.2	111.7	99.4	95.7	43.9	39.5	40.7	42.1
Mitt Romney	R	W	1.6	-11.8	0.5	2.3	55.0	59.4	58.1	57.2
others			0.3	0.2	1.7	2.1	1.1	1.1	1.0	0.6
votes for office			78.9	69.2	68.9	68.2	75.7	74.8	75.7	75.7
U.S. Senate										
Debbie Stabenow	D	W	97.3	110.5	99.1	95.8	48.4	44.5	45.7	47.6
Peter Hoekstra	R	W	1.6	-11.4	0.0	1.9	47.9	51.8	50.3	49.2
others			1.1	0.9	0.8	2.3	3.7	3.7	3.5	3.2
votes for office			78.3	69.2	67.8	67.8	74.0	73.0	74.0	74.0
2014 General										
Governor										
Mark Schauer	D	W	94.5	108.9	99.1	94.8	33.9	27.9	28.2	30.6
Rick Snyder	R	W	5.0	-9.5	0.8	2.8	64.1	70.1	69.8	68.1
others			0.5	1.9	1.0	2.5	2.0	2.0	1.9	1.3
votes for office			51.5	44.4	46.3	46.3	54.5	53.6	54.6	54.6
Secretary of State										
Godfrey Dillard	D	AA	93.3	109.7	99.1	94.6	29.1	23.5	24.3	26.4
Ruth Johnson	R	W	5.4	-9.5	0.4	2.7	67.9	73.5	72.7	71.4
others			1.3	1.9	1.2	2.7	2.9	3.0	2.7	2.2
votes for office			51.1	44.4	45.9	45.9	53.2	52.1	53.1	53.1
Attorney General		┝──┠								
Mark Totten	D	W	93.0	107.5	98.8	94.1	35.0	30.1	30.3	32.9
Bill Schuette	R	W	5.6	-8.8	0.8	3.0	61.3	66.2	65.9	64.0
others			1.4	1.3	1.5	2.9	3.7	3.7	3.5	3.1
votes for office			51.1	44.2	45.8	45.8	52.7	51.7	52.6	52.6

County: Oakland			Est	timates for	Black Voters	;	Esti	imates for \	White Voters	5
	Party	Race	HP	ER	El 2x2	EI RxC	НР	ER 🔄	El 2x2	EI RxC
U.S. Senate								Ň		
Gary Peters	D	W	96.8	110.6	99.4	95.0	46.9	43.0	44.0	46.7
Terry Lynn Land	R	W	2.0	-10.9	0.0	2.4	48.7	52.6	51.5	49.7
others			1.2	0.3	0.5	2.6	4.4	4.4	4.4	3.6
votes for office			51.5	44.7	46.5	46.5	53.7	53.7	53.7	53.7
2016 General										
U.S. President										
Hillary Clinton	D	W	95.2	108.8	99.4	95.1	36.0	34.2	34.3	39.1
Donald Trump	R	W	3.4	-9.7	0.8	2.4	58.6	59.8	59.6	55.8
others			1.4	0.7	0.1	2.5	5.4	6.0	6.0	5.1
votes for office			73.0	61.1	65.6	65.6	74.6	72.4	73.5	73.5
2018 General										
Governor										
Whitmer/Gilchrist	D	W/AA	95.3	107.6	99.3	94.1	44.2	42.4	42.2	47.4
Schuette/Lyons	R	W/W	3.5	-9.0	0.7	2.7	53.3	55.0	54.6	50.7
others			1.2	1.3	1.4	3.3	2.5	2.6	2.6	1.9
votes for office			62.5	51.6	53.2	53.2	69.6	68.2	68.8	68.8
Secretary of State										
Jocelyn Benson	D	W	95.2	108.1	99.1	94.2	44.3	42.4	42.3	47.5
Mary Treder Lang	R	W	3.4	-9.4	0.7	2.7	53.0	54.7	54.5	50.5
others			1.4	1.3	1.3	3.1	2.7	2.8	2.6	2.0
votes for office			62.1	51.5	53.1	53.1	68.7	67.1	67.7	67.7
Attorney General										
Dana Nessel	D	W	93.8	107.3	99.2	93.8	40.2	37.9	37.5	43.0
Tom Leonard	R	W	3.5	-9.7	0.6	2.6	55.4	96.8	57.5	53.0
others			2.7	2.4	2.0	3.6	4.4	0.5	4.4	4.0
votes for office			61.4	50.7	52.5	52.5	67.9	66.4	67.0	67.0

County: Oakland			Est	timates for	Black Voters	S	Est	timates f	Nhite Voter	s
	Party	Race	HP	ER	El 2x2	EI RxC	НР	ER 🔄	El 2x2	EI RxC
U.S. Senate								$\overline{\mathbf{i}}$		
Debbie Stabenow	D	W	93.8	106.5	98.7	93.0	42.7	41.1	40.9	45.5
John James	R	AA	4.8	-8.4	0.8	2.8	55.9	57.5	57.5	53.6
others			1.5	1.7	1.6	4.2	1.4	1.4	1.5	0.9
votes for office			62.5	51.5	53.2	53.2	69.5	68.1	68.7	68.7
2020 General										
U.S. President										
Joseph Biden	D	W	94.2	105.1	99.0	93.4	42.0	41.6	41.2	45.9
Donald Trump	R	W	5.3	-5.7	1.3	3.6	56.4	56.8	57.2	53.1
others			0.6	1.6	1.7	3.0	1.5	1.6	1.6	1.0
votes for office			76.1	64.6	71.6	71.6	85.7	84.9	86.4	86.4
U.S. Senate										
Gary Peters	D	W	93.1	104.5	98.8	92.1	40.7	39.9	39.4	43.5
John James	R	AA	5.2	-6.7	0.8	2.9	57.9	58.9	59.3	55.7
others			1.8	2.2	2.2	5.0	1.4	1.2	1.2	0.8
votes for office			75.7	64.7	71.4	71.4	84.8	84.1	85.4	85.4

County: Wayne			Es	timates for	Black Voters	5	Esti	imates for \	Nhite Voters	S
	Party	Race	HP	ER	El 2x2	EI RxC	НР	ER 🔄	El 2x2	EI RxC
2012 General								Ň		
U.S. President								S		
Barack Obama	D	AA	98.6	102.2	99.5	99.0	51.1	51.2	51.1	51.9
Mitt Romney	R	W	1.2	-2.4	0.5	0.6	48.0	47.8	47.7	47.3
others			0.2	0.2	0.3	0.4	0.9	1.1	0.9	0.8
votes for office			61.3	58.3	60.4	60.4	68.9	63.4	65.7	65.7
U.S. Senate										
Debbie Stabenow	D	W	97.3	100.2	98.9	98.1	56.8	57.2	56.6	57.6
Peter Hoekstra	R	W	1.2	-1.6	0.4	0.6	39.6	38.8	39.1	38.6
others			1.5	1.5	1.5	1.3	3.6	4.0	4.0	3.8
votes for office			60.8	57.8	59.9	59.9	67.6	62.1	64.4	64.4
2014 General										
Governor										
Mark Schauer	D	W	94.2	97.8	96.4	96.5	41.1	41.2	39.2	41.3
Rick Snyder	R	W	5.0	1.4	2.9	2.6	56.9	56.3	58.4	56.6
others			0.8	0.8	0.7	0.9	2.0	2.5	2.3	2.0
votes for office			36.3	33.0	35.8	35.8	50.7	44.1	47.7	47.7
Secretary of State										
Godfrey Dillard	D	AA	94.3	98.4	96.7	96.8	36.8	36.6	35.0	36.8
Ruth Johnson	R	W	4.3	0.3	2.1	1.9	59.7	59.2	61.2	59.6
others			1.4	1.4	1.3	1.3	3.4	4.1	3.8	3.6
votes for office			35.9	32.7	35.5	35.5	49.0	42.5	46.1	46.1
Attorney General		┝──┠								
Mark Totten	D	W	93.2	97.0	95.5	95.7	41.0	40.7	39.1	41.0
Bill Schuette	R	W	5.3	1.5	3.2	2.9	55.4	54.9	56.8	55.1
others			1.5	1.5	1.4	1.4	3.7	4.4	4.1	3.9
votes for office			35.7	32.5	35.3	35.3	48.8	42.3	45.9	45.9

County: Wayne			Es	timates for	Black Voters	5	Est	imates for \	<b>White Voter</b>	5
	Party	Race	HP	ER	El 2x2	EI RxC	НР	ER 🔄	El 2x2	EI RxC
U.S. Senate								Ň		
Gary Peters	D	W	96.8	100.0	98.5	98.0	52.8	52.7	51.4	53.4
Terry Lynn Land	R	W	2.0	-1.1	0.6	1.0	42.7	42.0	43.4	41.8
others			1.2	1.1	1.0	1.1	4.5	5.3	5.0	4.7
votes for office			36.2	32.9	35.7	35.7	49.8	43.2	46.8	46.8
2016 General										
U.S. President										
Hillary Clinton	D	W	96.8	101.0	99.0	98.4	47.1	39.1	38.2	39.7
Donald Trump	R	W	2.0	-2.1	0.6	0.7	47.8	54.8	55.4	54.4
others			1.2	1.1	1.0	0.9	5.1	6.1	6.0	5.9
votes for office			57.7	55.7	57.0	57.0	72.2	61.6	64.0	64.0
2018 General										
Governor										
Whitmer/Gilchrist	D	W/AA	95.6	99.0	97.6	97.0	53.4	49.7	47.9	53.5
Schuette/Lyons	R	W/W	2.5	-1.0	0.9	1.1	44.6	47.3	49.1	44.0
others			2.0	2.0	2.1	1.9	2.0	3.0	2.8	2.5
votes for office			33.9	30.9	33.2	33.2	67.2	59.8	63.2	63.2
Secretary of State										
Jocelyn Benson	D	W	95.7	99.0	97.7	97.0	53.1	50.0	49.1	53.6
Mary Treder Lang	R	W	2.4	-1.0	1.0	1.1	44.7	46.8	48.5	43.6
others			2.0	2.0	2.0	1.8	2.2	3.2	3.2	2.8
votes for office			33.7	30.8	33.1	33.1	66.2	58.8	62.2	62.2
Attorney General										
Dana Nessel	D	W	94.1	97.7	96.3	95.5	49.6	45.6	43.6	49.4
Tom Leonard	R	W	2.4	-1.3	0.8	1.0	47.2	49.9	51.8	46.6
others			3.6	3.6	3.5	3.5	3.3	44.9	4.3	4.1
votes for office			33.3	30.4	32.7	32.7	65.4	58.0	61.3	61.3

County: Wayne			Est	timates for	Black Voters	5	Es	timates f	Nhite Voter	s
	Party	Race	HP	ER	El 2x2	EI RxC	HP	ER 🔄	El 2x2	EI RxC
U.S. Senate								Ň		
Debbie Stabenow	D	W	93.8	97.1	95.9	95.8	52.4	48.9	47.1	52.3
John James	R	AA	3.8	0.4	1.9	1.5	46.5	49.4	52.2	46.5
others			2.4	2.5	2.4	2.7	1.1	1.7	1.4	1.3
votes for office			33.7	30.8	33.1	33.1	67.2	59.6	63.1	63.1
2020 General										
U.S. President										
Joseph Biden	D	W	95.4	99.0	97.9	97.5	53.3	45.9	44.5	47.5
Donald Trump	R	W	3.8	0.2	1.6	1.5	45.4	52.6	53.9	51.3
others			0.8	0.8	0.8	0.9	1.3	0.8	1.5	1.3
votes for office			59.2	55.6	58.0	58.0	81.3	74.1	76.6	76.6
U.S. Senate										
Gary Peters	D	W	93.3	967.0	95.3	95.2	51.7	46.6	44.4	47.2
John James	R	AA	3.8	0.3	1.7	1.6	47.0	52.1	53.7	51.5
others			2.8	3.0	2.9	3.2	1.3	1.9	1.8	1.4
votes for office			58.9	55.3	57.8	57.8	80.6	73.0	75.6	75.6

2018 Democratic Pr	imary for G	overno	r	Es	timates for	Black Voters	s	Es	stimates for N	Nhite Voter	s
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	ER	El 2x2	EI RxC
STATEWIDE									:2		
Abdul El-Sayed	D	ME	30.2%	21.0	24.2	23.5	26.0	25.7	27.1	30.2	28.5
Shri Thanedar	D	A	17.7%	42.5	44.2	42.2	39.0	15.8	12.9	10.8	9.4
Gretchen Whitmer	D	W	52.0%	36.5	31.6	33.5	35.0	58.6	60.0	59.4	62.0
votes for office				23.0	22.5	24.5	24.5	13.9	12.0	14.0	14.0
Genesee											
Abdul El-Sayed	D	ME	22.9%	16.5	18.6	17.9	21.0	22.3	24.8	24.2	23.5
Shri Thanedar	D	A	23.6%	46.0	49.9	47.2	43.4	15.7	13.6	13.3	11.5
Gretchen Whitmer	D	W	53.4%	37.5	31.6	34.5	35.7	62.0	61.6	61.9	65.1
votes for office				26.9	23.4	25.9	25.9	15.5	13.3	14.8	14.8
Saginaw											
Abdul El-Sayed	D	ME	22.2%		18.9	17.5	21.0		21.9	23.6	21.0
Shri Thanedar	D	А	24.7%		51.5	51.1	44.7		16.8	14.7	14.5
Gretchen Whitmer	D	W	53.1%		29.6	31.3	34.4		61.4	61.8	64.5
votes for office					19.7	20.7	20.7		12.4	13.2	13.2
Oakland											
Abdul El-Sayed	D	ME	32.5%	23.2	24.1	23.2	25.3	29.8	34.2	36.0	34.9
Shri Thanedar	D	A	13.4%	32.7	38.5	37.5	34.7	8.4	4.3	4.3	3.0
Gretchen Whitmer	D	W	54.1%	44.1	37.5	39.0	40.0	61.8	61.4	61.0	62.1
votes for office				31.4	33.3	35.0	35.0	20.8	16.1	18.2	18.2
Wayne											
Abdul El-Sayed	D	ME	32.0%	21.2	20.8	21.0	22.2	43.4	41.3	41.3	41.6
Shri Thanedar	D	A	24.3%	42.8	45.6	43.8	42.5	7.5	4.8	5.4	3.9
Gretchen Whitmer	D	W	43.7%	36.1	33.7	34.8	35.3	49.2	53.9	54.0	54.5
votes for office				22.4	21.1	23.5	23.5	19.3	16.0	17.4	17.4

## **APPENDIX B**

<b>Congressional District Genera</b>	l Electio	ns		Es	timates for	Black Voters	5	Es	timates for V	Nhite Voter	s
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	ER	El 2x2	EI RxC
Congressional District 5									:2		
2018 General									ζ.Υ Ι		
Daniel Kildee	D	W	59.5%	96.2	104.4	99.1	95.0	48.4	46.5	47.5	50.5
Travis Wines	R	W	35.9%	1.3	-7.8	0.2	1.7	47.0	<b>48.3</b>	46.9	44.9
others				2.5	3.3	3.2	3.3	4.6	5.2	4.9	4.7
votes for office				53.8	42.7	43.8	43.8	59.2	56.5	58.3	58.3
2020 General											
Daniel Kildee	D	W	54.5%	95.4	105.2	99.0	95.0	41.6	39.6	41.0	44.2
Tim Kelly	R	W	41.8%	2.1	-8.4	0.6	1.6	54.8	56.3	54.4	52.3
others				2.6	3.2	3.0	3.4	3.6	4.1	3.9	3.5
votes for office				67.1	54.5	54.5	54.5	76.6	73.8	76.0	76.0
Congressional District 9											
2018 General											
Andy Levin	D	W	59.7%		95.2	98.2	71.5		50.2	48.9	55.7
Candius Stearns	R	W	36.8%		-3.5	0.3	62.9		47.5	47.4	43.2
others					8.4	9.4	22.2		2.4	2.3	1.1
votes for office					17.9	17.5	17.5		66.2	66.4	66.4
2020 General											
Andy Levin	D	W	57.7%		92.6	96.6	74.7		48.3	45.9	52.0
Charles Langworthy	R	W	38.4%		-0.6	0.5	5.6		48.8	50.0	46.7
others					7.9	8.1	19.7		3.0	2.7	1.3
votes for office					37.9	27.6	27.6		80.2	82.7	82.7
Congressional District 12											
2018 General											
Debbie Dingell	D	W	68.1%		91.9	97.3	75.5		58.4	57.5	63.3
Jeff Jones	R	W	28.9%		3.1	1.8	9.8		38.6	38.9	35.6
others					5.0	4.4	14.7		3.0	3.0	1.1
votes for office					33.4	37.1	37.1		58.9	62.4	62.4

<b>Congressional District Genera</b>	l Electio	ns		Es	timates for	Black Voters	s	E	stimates for	White Voter	S
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	ER	El 2x2	EI RxC
2020 General									:2		
Debbie Dingell	D	W	66.4%		91.2	95.9	75.3		56.4	55.3	58.7
Jeff Jones	R	W	30.7%		4.2	2.7	11.4		40.6	41.6	40.0
others					4.3	4.2	13.2		<b>3</b> .0	3.2	1.3
votes for office					50.3	58.2	58.2		73.8	75.0	75.0
Congressional District 13											
2018 General											
Rashida Tlaib	D	ME	84.2%	93.4	95.5	94.9	95.2		64.2	64.5	65.6
others				6.6	4.5	5.4	4.8		35.7	35.7	34.4
votes for office				32.5	32.3	34.7	34.7		39.1	41.3	41.3
2020 General											
Rashida Tlaib	D	ME	78.1%	94.6	97.8	96.5	96.1		46.5	47.0	46.9
David Dudenhoefer	R	W	18.7%	2.7	-0.4	1.1	1.2		49.2	48.7	49.0
others				2.7	2.7	2.6	2.7		4.4	4.2	4.1
votes for office				587.0	57.5	60.0	60.0		59.0	61.1	61.1
Congressional District 14											
2018 General											
Brenda Lawrence	D	AA	80.9%	96.3	99.3	98.1	96.7	40.8	51.3	52.3	61.1
Marc Herschfus	R	W	17.3%	1.7	-1.4	0.5	1.6	58.1	46.9	40.9	36.9
others				2.0	2.1	1.8	1.7	1.1	1.8	2.2	2.1
votes for office				36.1	33.8	40.0	40.0	74.3	72.6	74.5	74.5
2020 General											
Brenda Lawrence	D	AA	79.3%	95.0	97.9	96.6	96.5	41.6	49.3	50.3	55.6
Robert Vance Patrick	R	W	18.3%	2.6	-0.3	0.9	1.3	56.4	48.2	47.5	41.7
others				2.4	2.5	2.2	2.2	2.0	2.5	2.4	2.6
votes for office				59.9	57.4	61.7	61.7	90.7	85.0	86.3	86.3

2018 General: State Senat	e Districts			Es	timates for	Black Voters	S	Es	stimates for \	White Voter	s
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	<b>ER</b>	El 2x2	EI RxC
District 1 (Wayne)									:2		
Stephanie Chang	D	А	72.0%	91.3	97.8	94.1	93.2	47.2	49.0	48.8	53.3
Pauline Montie	R	W	24.2%	2.1	-4.2	0.8	1.1	51.0	9.4	48.6	44.6
others			3.8%	6.1	6.4	6.3	5.6	1.8	<b>1</b> .6	1.6	2.1
votes for office				33.3	27.8	31.0	31.0	66.6	54.7	57.3	57.3
District 2 (Wayne)											
Adam Hollier	D	AA	75.7%	96.4	99.5	98.0	97.9	37.7	47.7	46.5	52.8
Lisa Papas	R	W	24.3%	3.6	0.5	2.0	2.1	62.3	52.2	53.4	47.2
votes for office				31.3	28.0	30.9	30.9	74.1	69.6	73.3	73.3
District 3 (Wayne)											
Sylvia Santana	D	AA	81.8%	94.2	95.6	95.4	95.6	78.8	67.9	64.4	66.3
Kathy Stecker	R	W	15.3%	2.5	1.1	1.5	1.3	18.9	29.3	32.6	31.0
others			2.9%	3.9	3.3	3.3	3.1	2.3	2.8	2.7	2.7
votes for office				30.7	29.2	30.0	30.0	38.7	42.8	45.4	45.4
District 4 (Wayne)											
Marshall Bullock	D	AA	78.3%		97.0	100.2	98.7		45.3	46.1	51.1
Angela Savino	R	W	21.7%		3.0	-0.1	1.3		54.7	53.9	48.9
votes for office				32.4	30.6	32.2	32.2		50.2	51.2	51.2
District 5 (Wayne)											
Betty Jean Alexander	D	AA	77.4%	93.4	95.5	95.4	95.3		49.9	48.9	50.7
DeShawn Wilkins	R	AA	18.2%	3.3	1.2	1.6	1.6		43.7	44.5	43.1
others			4.4%	3.3	3.3	3.2	3.1		6.4	6.5	6.2
votes for office				34.9	36.2	39.4	39.4		44.2	44.1	44.1
District 6 (Wayne)			┝──╂								
Erika Geiss	D	AA	61.4%		107.3	99.4	92.8		42.6	43.8	47.8
Brenda Jones	R	AA	38.7%		-7.2	0.5	7.2		57.4	56.4	52.3
votes for office					38.3	35.9	35.9		50.0	52.9	52.9

2018 General: State Senate	Districts			E	stimates for	Black Voter	S	E	stimates for	White Voter	S
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	ER	El 2x2	EI RxC
District 11 (Oakland)									:2		
Jeremy Moss	D	W	76.7%		99.0	99.2	96.3	80.9	60.2	56.9	60.2
Boris Tuman	R	W	20.9%		0.0	0.4	2.0	17.5	36.0	39.2	36.6
others			12.4%		1.0	1.0	1.7	1.6	3.7	3.8	3.2
votes for office					60.6	63.4	63.4	83.7	59.9	60.1	60.1
District 12 (Oakland)											
Rosemary Bayer	D	W	49.4%		122.0	99.6	87.9		33.2	33.3	42.1
Michael D. McCready	R	W	48.6%		-23.8	0.6	4.6		64.9	64.2	56.7
others			2.0%		1.7	2.0	7.4		2.0	2.0	1.2
votes for office					14.5	25.6	25.6		75.1	74.4	74.4
District 27 (Genesee)											
Jim Ananich	D	W	71.2%	97.6	103.0	99.3	97.7	53.9	53.3	54.2	55.6
Donna Kekesis	R	W	28.8%	2.4	-3.0	0.7	2.3	46.1	46.7	45.8	44.4
votes for office				53.7	46.5	50.5	50.5	58.7	46.9	49.9	49.9
District 32 (Genesee and S	aginaw)										
Phil Phelps	D	W	44.5%		113.0	99.7	96.1		29.5	30.1	33.5
Ken Horn	R	W	55.5%		-13.0	0.4	3.9		70.5	69.9	66.5
votes for office					37.9	37.6	37.6		61.4	62.3	62.3

2018 General: State House	Districts			Es	timates for	Black Voters	S	Es	stimates for V	White Voter	s
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	ER	El 2x2	EI RxC
District 1 (Wayne)									Ň		
Tenisha Yancey	D	AA	72.9%	96.3	101.0	99.1	97.3		33.3	36.2	47.0
Mark Corcoran	R	W	25.0%	2.2	-2.5	0.5	1.7		63.8	59.7	49.5
others			2.1%	1.5	1.5	1.6	0.9		2.9	3.9	3.5
votes for office				30.5	28.8	30.1	30.1		81.0	80.4	80.4
District 2 (Wayne)											
Joe Tate	D	AA	73.5%	97.4	101.5	98.8	98.8	41.6	46.8	47.2	53.0
John Palffy	R	W	26.5%	2.6	-1.4	1.1	1.2	58.5	53.1	53.1	47.0
votes for office				33.9	26.9	28.3	28.3	74.0	77.0	78.2	78.2
District 3 (Wayne)											
Wendell L. Byrd	D	AA	96.7%		97.4	97.8	98.8		89.6	87.3	80.4
Dolores Brodersen	R		3.3%		2.6	2.2	1.2		10.5	12.3	19.6
votes for office					28.5	32.0	32.0		76.7	67.4	67.4
District 4 (Wayne)											
Isaac Robinson	D	W	94.6%	97.6	97.3	97.7	97.2		89.5	86.3	85.5
Howard Weathington	R	AA	5.4%	2.4	2.7	2.2	2.8		10.4	13.6	14.5
votes for office				27.0	30.1	30.3	30.3		24.5	24.1	24.1
State House District 5											
Cynthia A. Johnson	D	AA	92.5%	97.0	97.8	98.2	97.7		72.4	62.2	na
Dorothy Patterson	R		5.5%	3.0	2.2	2.0	2.4		27.8	37.8	na
votes for office				29.8	30.2	31.3	31.3		na	na	
District 6 (Wayne)											
Tyrone Carter	D	AA	91.1%	95.6	98.4	98.2	96.3		66.3	65.0	66.0
Linda Sawyer	R	W	8.9%	4.4	1.7	1.9	3.7		33.5	35.0	34.0
votes for office				34.9	35.3	38.2	38.2		18.2	25.3	25.3

2018 General: State House	e Districts				Estimates for	Black Voter	s	Estimates for White Voters				
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	<b>Ser</b>	El 2x2	EI RxC	
District 7 (Wayne)				insufficient	white voters	to produce of	estimates of	voting patt	erns by race			
LaTanya Garrett	D	AA	97.6%						S			
Marcelis Turner	R	AA	2.4%						PM			
others									Λ			
votes for office												
District 8 (Wayne)				insufficient	white voters	to produce (	estimates of	voting patt	erns by race			
Sherry Gay Dagnogo	D	AA	96.4%									
Valerie R. Parker	R	AA	3.7%									
others												
votes for office												
District 9 (Wayne)												
Karen Whitsett	D	AA	95.1%		97.5	97.7	98.5		85.2	84.1	78.8	
James Stephens	R		4.9%		2.5	2.3	1.5		14.8	16.0	21.2	
votes for office					30.8	31.4	31.4		18.1	17.6	17.6	
District 10 (Wayne)												
Leslie Love	D	AA	84.0%		99.1	98.7	96.7		48.3	48.8	59.3	
William Brang	R	W	14.2%		-0.3	0.6	2.2		47.8	46.1	37.5	
others			1.8%		1.2	1.2	1.2		3.9	3.6	3.3	
votes for office					33.4	34.8	34.8		65.1	69.4	69.4	
District 11 (Wayne)												
Jewell Jones	D	AA	66.9%		106.0	99.2	96.2		50.4	51.0	51.9	
James Townsend	R	W	33.1%		-6.0	0.8	3.8		49.8	49.1	48.1	
votes for office					37.9	38.9	38.9		44.9	45.2	45.2	
District 12 (Wayne)												
Alex Garza	D	Н	66.6%		104.7	98.8	90.6		43.9	46.3	49.0	
Michelle Bailey	R	W	33.4%		-4.7	1.1	9.4		56.1	54.1	51.0	
votes for office					47.8	48.0	48.0		41.8	42.8	42.8	

2018 General: State House	Districts			E	Stimates for	Black Voters	5	Estimates for White Voters				
	Party	Race	Vote	HP	ER	EI 2x2	EI RxC	HP	ER	El 2x2	EI RxC	
District 16 (Wayne)									:2			
Kevin Coleman	D	W	67.3%		111.8	99.1	81.5		50.2	51.5	60.1	
Jody Rice-White	R	W	32.8%		-11.9	1.1	18.5		49.8	48.9	39.9	
votes for office					18.3	48.0	18.7		56.1	57.0	57.0	
District 27 (Oakland)												
Robert Wittenberg	D	W	78.5%		96.3	97.6	93.0	75.4	71.2	70.3	73.8	
Janet Flessland	R	W	18.5%		1.7	1.0	3.0	22.5	35.6	26.2	24.3	
others			3.0%		2.1	2.1	4.0	2.0	3.2	3.4	1.9	
votes for office					53.6	58.1	58.1	78.1	67.4	65.8	65.8	
District 29 (Oakland)												
Brenda Carter	D	AA	74.1%		114.5	99.2	94.5		36.7	41.8	54.6	
Timothy D. Carrier	R	W	25.9%		-14.5	1.1	5.5		63.1	58.3	45.4	
votes for office					32.8	46.3	46.3		54.5	52.1	52.1	
District 34 (Genesee)												
Sheldon A. Neeley	D	AA	90.0%		101.5	99.5	98.7		58.9	64.0	46.7	
Henry Swift	R		10.0%		-1.4	0.5	9.3		41.1	0.5	53.4	
votes for office					52.6	54.7	54.7		18.8	22.1	22.1	
District 35 (Oakland)												
Kyra Harris Bolden	D	AA	85.5%		102.7	99.6	98.2		53.5	57.2	63.1	
Theodore Alfonsetti III	R	W	14.6%		-2.7	0.3	1.8		46.5	42.9	36.9	
votes for office					56.1	55.6	55.6		74.5	77.2	77.2	
District 37 (Oakland)												
Christine Greig	D	W	67.2%		111.4	98.2	69.5		59.6	61.5	68.2	
Mitch Swoboda	R	W	32.8%		-11.2	2.2	30.5		40.6	38.7	31.8	
votes for office					34.8	35.6	35.6		85.0	82.3	82.3	

2018 General: State House	2018 General: State House Districts				Estimates for Black Voters				Estimates for White Voters			
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	ER	El 2x2	EI RxC	
District 49 (Genesee)									:2			
John D. Cherry	D	W	72.4%		104.9	99.2	94.1		55.6	57.2	61.4	
Patrick Duvendeck	R	W	27.6%		-5.0	0.8	6.0		<b>44.4</b>	42.7	38.7	
votes for office					40.0	42.3	42.3		<b>5</b> 3.0	57.8	57.8	
District 95 (Saginaw)												
Vanessa Guerra	D	Н	73.1%		109.8	99.0	96.0		43.3	47.3	50.5	
Dorothy Tanner	R	W	26.9%		-9.9	0.8	4.0		56.7	52.8	49.5	
votes for office					44.9	46.1	46.1		50.1	49.4	49.4	

2020 General: State House	Districts			E	stimates for	Black Voters	s	E	stimates for V	White Voter	s
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	Ser Er	El 2x2	EI RxC
District 1 (Wayne)									:2		
Tenisha R. Yancey	D	AA	75.8%	94.9	99.4	97.3	98.3		38.0	42.2	46.9
Latricia Ann Lanier	R	AA	22.2%	3.7	-0.7	1.5	0.9		59.0	55.7	49.5
others			2.0%	1.4	1.3	1.0	0.8		<b>3</b> .0	3.1	3.6
votes for office				53.8	52.3	53.0	53.0		94.2	92.4	92.4
District 2 (Wayne)											
Joe Tate	D	AA	74.1%	93.5	96.8	95.0	95.9	46.0	50.7	50.9	54.6
Mayra Rodriguez	R	Н	23.8%	3.2	-0.2	1.3	1.0	53.1	48.7	47.9	44.4
others			2.1%	3.3	3.5	3.5	3.0	1.0	0.7	0.7	1.1
votes for office				55.8	51.5	51.9	51.9	89.8	92.0	92.9	92.9
District 3 (Wayne)											
Shri Thanedar	D	А	93.3%		95.0	95.0	97.7		73.1	72.9	55.4
Anita Vinson	R	AA	4.0%		3.3	3.3	1.4		12.3	12.6	25.1
others			2.7%		1.6	1.8	0.9		14.5	12.9	19.5
votes for office					50.8	55.8	55.8		117.2	97.7	97.7
District 4 (Wayne)											
Abraham Aiyash	D	ME	89.8%		95.9	96.7	95.5		92.9	90.3	86.6
Howard Weatherington	R	AA	5.7%		1.1	1.3	1.8		5.7	7.6	8.7
others			4.5%		3.0	3.0	2.8		1.3	1.4	4.7
votes for office					89.7	90.1	90.1		57.7	68.1	68.1
District 5 (Wayne)											
Cynthia A. Johnson	D	AA	93.0%	97.3	98.0	98.0	98.3		73.2	69.1	na
Harold M. Day	R		2.3%	2.7	2.1	2.0	1.7		27.1	32.7	na
votes for office				54.3	55.7	56.9	56.9		na	na	
District 6 (Wayne)											
Tyrone Carter	D	AA	100%								
votes for office											

2020 General: State House	Districts				Estimates for	Black Voter	s	Estimates for White Voters				
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	Ser ER	El 2x2	EI RxC	
District 7 (Wayne)				insufficient	white voters	to produce	estimates of	voting patt	terns by race			
Helena Scott	D	AA	93.0%						S			
Ronald Cole	R		2.3%						PM			
others			4.7%						Λ			
votes for office												
District 8 (Wayne)				insufficient	white voters	to produce (	estimates of	voting patt	terns by race			
Stephanie A. Young	D	AA	96.7%									
Miroslawa Teresa Gorak	R	W	3.3%									
votes for office												
District 9 (Wayne)												
Karen Whitsett	D	AA	94.2%		96.5	96.5	97.2		83.7	83.4	75.4	
James Stephens	R		5.8%		3.5	3.4	2.8		16.3	16.1	24.5	
votes for office					56.3	57.3	57.3		29.7	27.1	27.1	
District 10 (Wayne)												
Mary Cavanagh	D	Н	84.8%		99.1	98.9	98.3		51.1	50.8	53.7	
Cathy L. Alcorn	R		15.3%		0.9	1.1	1.7		48.9	49.4	46.3	
votes for office					62.9	65.3	65.3		69.1	68.3	68.3	
District 11 (Wayne)												
Jewell Jones	D	AA	65.2%		104.7	99.0	96.9		48.8	48.5	50.7	
James C. Townsend	R	W	34.8%		-4.6	1.0	3.1		51.2	51.5	49.3	
votes for office					53.0	53.5	53.5		62.1	63.2	63.2	
District 12 (Wayne)												
Alex Garza	D	Н	62.4%		103.0	99.4	91.8		38.2	38.8	41.4	
Michelle Bailey	R	W	37.7%		-3.0	0.6	8.2		61.8	60.9	58.6	
votes for office					64.7	66.4	66.4		57.9	57.9	57.9	

2020 General: State House	Districts			I	Estimates for	Black Voters	S	Estimates for White Voters				
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	Ser Er	El 2x2	EI RxC	
District 16 (Wayne)									:2			
Kevin Coleman	D	W	62.5%		111.3	99.0	84.8		<b>S</b> 44.4	45.6	54.2	
Emily Bauman	R	W	37.5%		-11.4	1.0	15.2		55.7	54.4	45.8	
votes for office					29.9	33.5	33.5		75.1	76.0	76.0	
District 27 (Oakland)												
Regina Weiss	D	W	74.4%		95.4	97.3	93.3	68.7	64.2	63.4	66.4	
Elizabeth Goss	R	W	22.4%		2.6	1.5	3.9	28.8	32.0	32.5	30.6	
others			3.2%		1.7	1.6	2.8	2.5	3.9	4.1	33.0	
votes for office					73.8	76.6	76.6	88.1	77.7	77.4	77.4	
District 29 (Oakland)												
Brenda Carter	D	AA	72.9%		111.1	99.1	94.7		37.1	38.8	51.3	
S. Dave Sullivan	R	W	27.1%		-11.0	0.8	53.3		62.7	61.5	48.7	
votes for office					47.6	61.1	61.1		67.5	61.5	61.5	
District 34 (Oakland)												
Cynthia R. Neeley	D	AA	86.7%		100.5	99.2	98.3		51.6	56.1	45.9	
James Miraglia	R	W	13.3%		-4.8	0.7	1.7		48.4	43.8	54.1	
votes for office					65.6	67.6	67.6		32.5	36.8	36.8	
District 35 (Oakland)												
Kyra Harris Bolden	D	AA	82.9%		99.8	99.4	97.2		51.5	51.2	58.5	
Daniela Davis	R	AA	15.9%		-0.4	0.3	2.3		46.4	46.2	39.3	
others			1.0%		0.6	0.5	0.5		2.1	2.4	2.2	
votes for office					70.1	68.4	68.4		93.4	94.5	94.5	
District 37 (Oakland)												
Samantha Steckloff	D	W	63.9%		106.1	96.4	57.5		56.8	56.9	66.4	
Mitch Swoboda	R	W	34.1%		-8.7	0.8	34.2		41.7	40.8	32.2	
others			2.0%		2.5	6.3	8.3		1.7	1.3	1.4	
votes for office					55.5	54.9	54.9		106.2	94.0	94.0	

2020 General: State House	Districts			Estimates for Black Voters				Estimates for White Voters			
	Party	Race	Vote	HP	ER	El 2x2	EI RxC	HP	Ser ER	El 2x2	EI RxC
District 49 (Genesee)									:2		
John D. Cherry	D	W	68.9%		104.3	98.8	94.8		50.2	51.9	56.6
Bryan Lutz	R	W	31.1%		-4.3	1.0	5.2		49.8	48.3	43.6
votes for office					52.5	60.7	60.7		<b>68.0</b>	69.1	69.1
District 95 (Saginaw)											
Amos O'Neal	D	AA	70.1%		111.7	99.2	96.6		34.7	41.1	42.7
Charlotte DeMaet	R	W	29.9%		-11.5	0.9	3.4		65.2	58.9	57.3
votes for office					59.0	60.6	60.6		62.9	61.5	61.5

Recent Democratic Prima	ries: Con	gress	Estima	ates for Bla	ack Voters	Estimates for White Voters			
	Race	Vote	HP	ER	EI	HP	ER	EI	
2018									
Congressional District 13									
lan Conyers	В	6.6	8.3	9.1	9.3		1.3	1.1	
Shanelle Jackson	В	5.4	7.7	7.1	7.5		1.6	1.2	
Brenda Jones	В	30.2	42.5	43.7	43.5		2.9	5.3	
Rashinda Tlaib	ME	31.2	22.3	21.3	22.4		48.1	45.3	
Bill Wild	W	14.1	1.6	-1.4	0.7		46.2	43.9	
Coleman Young II	В	12.5	17.7	20.1	18.9		-0.3	1.1	
turnout of VAP			23.0	22.2	24.3		12.2	14.1	
2020									
Congressional District 12									
Debbie Dingell	W	80.9		81.4	81.2		87.9	87.7	
Solomon Rajput	A	19.1		18.9	19.0		12.1	12.2	
turnout of VAP				18.8	24.2		13.6	13.1	
Congressional District 13									
Brenda Jones	В	33.7	37.8	37.7	37.3		27.0	27.9	
Rashida Tlaib	ME	66.3	62.2	62.3	62.7		72.9	72.1	
turnout of VAP			28.0	26.7	29.5		14.1	15.8	
Congressional District 14									
Brenda Lawrence	В	93.2	92.7	92.7	92.8	92.1	91.6	92.0	
Terrance Morrison		6.8	7.3	7.3	7.5	7.9	8.4	8.7	
turnout of VAP			25.9	23.7	28.0	22.4	13.3	18.5	

**Recent Democratic Primaries:** 2018 State Senate **Estimates for Black Voters Estimates for White Voters** EI Race Vote HP ER EI HP ER State Senate District 1 (Wayne) 49.8 23.5 27.1 79.2 76.7 Stephanie Chang A 24.6 71.6 3.9 В 5.2 6.2 7.8 6.2 4.3 3.6 James Cole 4.3 5.9 5.2 Nicholas Rivera Н 2.9 1.3 0.9 0.8 8.7 4.4 2.1 1.5 8.6 9.9 Stephanie Roehm 1.0 11.2 17.9 15.7 17.0 **Bettie Cook Scott** В 18.2 6.6 6.1 Alberta Tinsley Talabi В 26.4 47.7 48.9 47.1 4.7 -2.7 2.9 17.4 turnout of VAP 20.0 20.9 23.3 13.3 13.9 State Senate District 3 (Wayne) Anita Belle 14.3 23.7 25.5 25.4 1.9 В 4.9 1.9 5.5 3.9 2.2 Terry Burrell W 8.5 8.6 8.4 2.1 В 60.3 20.2 19.9 18.7 Sylvia Santana 41.5 56.6 60.2 Gary Woronchak W 38.7 11.2 5.7 8.0 71.0 76.2 76.0 turnout of VAP 18.7 16.8 17.9 17.2 17.3 17.8 State Senate District 4 (Wayne) Marshall Bullock 44.3 44.5 47.2 В 46.8 39.2 38.6 Fred Durhal В 38.3 39.4 42.6 40.6 30.8 31.3 **Carron Pinkins** В 17.5 13.8 12.8 12.6 30.0 29.1 turnout of VAP 21.5 21.8 26.3 8.7 10.5 State Senate District 5 (Wayne) Betty Jean Alexander В 54.5 66.9 69.1 68.1 27.2 27.5 45.5 31.9 72.8 72.6 David Knezek W 33.1 30.9 turnout of VAP 22.2 23.1 10.7 11.4 21.6 **State Senate District 6** В 55.9 Erika Geiss 65.4 86.1 89.5 55.6 w 44.0 Robert Kosowski 34.6 13.9 10.3 44.4 turnout of VAP 19.5 18.0 12.4 14.3 State Senate District 11 (Oakland) Crystal Bailey В 21.2 36.6 27.0 24.9 7.9 16.7 17.3 w 51.8 35.4 49.0 53.1 78.1 51.9 51.0 Jeremy Moss Vanessa Moss В 18.5 20.2 17.5 16.2 10.2 20.4 20.3 В 8.6 7.8 5.8 James Turner 6.5 3.7 11.0 10.9 29.0 43.3 20.6 turnout of VAP 30.8 33.4 20.5

## **APPENDIX C**

Detroit area			Estimates for Hispanics		
	Party	Race	ER	El 2x2	
2020 General					
U.S. President					
Joseph Biden	D	W	75.4	76.0	
Donald Trump	R	W	24.3	23.9	
others			0.3	0.2	
votes for office			13.9	14.8	
U.S. Senate					
Gary Peters	D	W	73.6	74.8	
john James	R	W	22.6	21.9	
others			3.8	3.2	
votes for office			13.5	14.6	
2018 General					
Governor					
Gretchen Whitmer	D	W	83.1	80.0	
Bill Schuette	R	W	15.3	14.8	
others			1.5	1.8	
votes for office			3.5	5.1	
Secretary of State					
Jocelyn Benson	D	W	84.0	82.6	
Mary Treder Lang	R	W	14.4	13.5	
others			1.7	14.0	
votes for office			3.3	4.4	
Attorney General					
Dana Nessel	D	W	80.1	78.9	
Tom Leonard	R	W	16.4	15.2	
others			3.4	3.7	
votes for office			3.4	4.8	

Detroit area			<b>Estimates for Hispanics</b>	
	Party	Race	ER	El 2x2
U.S. Senate				
Debbie Stabenow	D	W	82.5	82.2
John James	R	W	16.4	17.1
others			1.3	0.0
votes for office			3.3	4.5
2018 Democratic Primary				
Governor				
Abdul El-Sayed	D	ME	55.5	58.5
Shri Thanedar	D	A	13.6	12.7
Gretchen Whitmer	D	W	30.8	28.7
votes for office			-2.0	1.0

Grand Rapids area			Estimates for Hispanics		
Party	Race	ER	El 2x2		
D	W	98.6	94.8		
R	W	0.5	0.1		
		1.0	1.3		
		0.0	8.6		
D	W	96.1	93.3		
R	W	-1.6	3.2		
		5.3	9.2		
		0.0	7.3		
D	W	99.5	95.0		
R	W	-4.5	1.6		
		5.6	6.1		
		-9.0	1.1		
D	W	102.1	97.0		
R	W	-5.3	1.1		
		3.3	6.9		
		-9.0	0.3		
D	W	97.2	93.1		
-			1.2		
		9.3	9.8		
		-9.0	0.8		
	D R D R D R D R D R D R D R D R D R D R	D       W         D       W         R       W         D       W         R       W         D       W         D       W         N       N         D       W         N       N         D       W         N       N         D       W         N       N         D       W         N       N         D       W         N       N         D       W         N       N         D       W         N       N         D       W         N       N         N       N         N       N         N       N         N       N         N       N         N       N         N       N         N       N         N       N         N       N         N       N         N       N         N       N         N       N         N	Party         Race         ER           D         W         98.6           R         W         0.5           R         W         0.0           I         I         1.0           D         W         98.6           R         W         0.5           I         I         1.0           I         I         0.0           D         W         96.1           R         W         -1.6           D         W         96.1           R         W         -1.6           D         W         90.1           R         W         -1.6           D         W         90.1           R         W         -1.6           D         W         99.5           R         W         -9.0           D         W         99.5           R         W         -9.0           D         W         102.1           R         W         -5.3           D         W         -9.0           D         W         -9.0           D         M         -9.0		

Grand Rapids area			Estimates for Hispanics	
	Party	Race	ER	El 2x2
U.S. Senate				
Debbie Stabenow	D	W	97.2	93.2
John James	R	W	-3.4	2.0
others			6.2	10.4
votes for office			-9.0	1.1
2018 Democratic Primary				
Governor				
Abdul El-Sayed	D	ME	51.1	51.3
Shri Thanedar	D	A	39.8	42.4
Gretchen Whitmer	D	W	8.9	11.9
votes for office			-2.3	0.1

				ab Americans
	Party	Race	ER	El 2x2
2020 General				
U.S. President				
Joseph Biden	D	W	98.3	98.9
Donald Trump	R	W	1.3	0.8
others			0.6	1.0
votes for office			24.1	26.7
U.S. Senate				
Gary Peters	D	W	100.7	99.0
John James	R	W	-2.9	0.8
others			2.1	2.1
votes for office			22.2	24.9
2018 General				
Governor				
Gretchen Whitmer	D	W	103.9	99.3
Bill Schuette	R	W	-6.2	1.1
others			2.5	2.1
votes for office			8.6	10.3
Comptone of Choke				
Secretary of State		W	104 7	00.2
Jocelyn Benson	D R	W		99.3 0.9
Mary Treder Lang others	n.	vv	-0.3	0.9
			8.5	1.7 9.8
votes for office			8.5	9.0
Attorney General				
Dana Nessel	D	W	106.8	99.5
Tom Leonard	R	W	-8.0	0.6
others			1.3	1.3
votes for office			8.6	10.1

			<b>Estimates for Arab America</b>		
	Party	Race	ER	El 2x2	
U.S. Senate					
Debbie Stabenow	D	W	107.2	99.1	
John James	R	W	-9.0	1.1	
others			1.9	1.9	
votes for office			8.4	10.0	
2018 Democratic Primary					
Governor					
Abdul El-Sayed	D	ME	116.4	92.8	
Shri Thanedar	D	А	-0.3	0.2	
Gretchen Whitmer	D	W	-16.0	0.6	
votes for office			15.0	15.1	

				<b>Estimates for Chaldeans</b>		
	Party	Race	ER	El 2x2		
2020 General						
U.S. President						
Joseph Biden	D	W	19.5	20.5		
Donald Trump	R	W	81.9	80.3		
others			-0.8	2.0		
votes for office			31.2	29.6		
U.S. Senate						
Gary Peters	D	W	26.3	26.2		
John James	R	W	74.0	72.8		
others			-0.6	0.2		
votes for office			27.9	27.2		
2018 General						
Governor						
Gretchen Whitmer	D	W	52.9	48.9		
Bill Schuette	R	W	47.9	47.4		
others			0.2	8.0		
votes for office			-12.2	0.0		
Secretary of State						
Jocelyn Benson	D	W	55.3	53.7		
Mary Treder Lang	R	W	44.7	42.0		
others			0.4	7.9		
votes for office			-10.8	0.3		
Attorney General						
Dana Nessel	D	W	52.5	48.0		
Tom Leonard	R	W	47.4	47.4		
others			0.4	0.1		
votes for office			-10.3	2.5		

			Estimates fo	or Chaldeans
	Party	Race	ER	El 2x2
U.S. Senate				
Debbie Stabenow	D	W	55.2	55.6
John James	R	W	43.2	44.0
others			0.7	0.9
votes for office			-11.4	0.4
2018 Democratic Primary				
Governor				
Abdul El-Sayed	D	ME	50.1	na
Shri Thanedar	D	A	11.2	na
Gretchen Whitmer	D	W	38.7	na
votes for office			-1.1	0.1

			Estimates for Bangladeshi Americans			
	Party	Race	ER	El 2x2		
2020 General						
U.S. President						
Joseph Biden	D	W	104.7	96.1		
Donald Trump	R	W	-4.4	3.2		
others			0.1	0.1		
votes for office			31.6	25.2		
U.S. Senate						
Gary Peters	D	W	104.4	96.2		
John James	R	W	-5.2	3.3		
others			0.9	1.1		
votes for office			31.6	24.6		
2018 General						
Governor						
Gretchen Whitmer	D	W	105.7	99.1		
Bill Schuette	R	W	-7.4	1.1		
others			1.1	1.1		
votes for office			13.7	18.7		
Sacratary of State						
Secretary of State Jocelyn Benson	D	W	105.7	98.9		
Mary Treder Lang	B	W	-7.1	98.9		
others	n –	vv	2.5	2.4		
votes for office			13.9			
			15.9	19.3		
Attorney General						
Dana Nessel	D	W	107.5	98.2		
Tom Leonard	R	W	-8.0	0.7		
others			2.3	2.3		
votes for office			13.8	19.2		

		Estimates for Bangladeshi Americans		
	Party	Race	ER	EI 2x2
U.S. Senate				
Debbie Stabenow	D	W	107.1	99.1
John James	R	W	-7.7	0.9
others			1.7	0.7
votes for office			13.9	18.4
2018 Democratic Primary				
Governor				
Abdul El-Sayed	D	ME	98.8	97.3
Shri Thanedar	D	A	6.5	5.1
Gretchen Whitmer	D	W	-5.2	4.5
votes for office			16.4	14.7

### Michigan Independent Citizens Redistricting Commission

MICRC / MEETING NOTICES & MATERIALS

## **Meeting Notices & Materials**

- > 2021 Meeting and Hearing Schedule
- > Watch Past Meeting of the ICRC

### **Important Commission Documents**

- Redistricting 101
- Redistricting 201
- MICRC Mapping Process
- Communications with the Public
- Code of Conduct
- Amended Rules of Procedure (Adopted and Effective Jan. 13, 2022)
- FOIA Policies
- Racially Polarized Voting Analysis

### SUBSCRIBE TO STAY UPDATED ON UPCOMING COMMISSION MEETINGS

MICRC Meeting - Detroit, MI - Jan. 13, 2022 Meeting Notice - Jan. 13, 2022 Meeting Agenda - Jan. 13, 2022 Approved Minutes -Proposed Minutes -Written Public Comment - Jan. 13, 2022 Transcript -Other Øeeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Proposed Amendment submitted Jan. 10, 2022 > Amended Rules of Procedure - Draft - Jan. 10, 2022

- > 2022 Budget Approved Dec. 16, 2021
- > Resolution Jan. 02, 2022 Rescind Remote and Hybrid Meetings Policies and Procedures

- > Resolution Jan. 01, Issue Bid Requests for Video
- > Resolutions Dec. 06, 2021 through Dec. 14, 2021 adopted Dec. 28, 2021
- > Statement of Work Lessons Learned

MICRC Closed Session Meeting - East Lansing, MI - Oct. 27, 2021 Minutes closed session - Final - Submitted Jan. 10, 2022

### **Dr. Lisa Handley Racially Polarized Voting Final Report Jan. 4, 2021** Final Report

### MICRC Meeting - Lansing, MI - Dec. 28, 2021

Meeting Notice - Dec. 28, 2021 Meeting Agenda - Dec. 28, 2021 Approved Minutes -Proposed Minutes - Dec. 28, 2021 Written Public Comment - Dec. 28, 2021 Transcript - Dec. 28, 2021 Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Dr. Handley Final Report > Resolution Extension of Robert Half Contract > Summary of MSC Order Submitted Dec 25 > Correspondence from Commissioner Lange for Public Record > P and C Memorandum re: Subsection 14 > Wagner-Gronda Attorney Letter

### Legal Filings - Dec. 20, 2021

> MCS 163823 Materials

### MICRC Meeting - Detroit, MI - Dec. 16, 2021

Meeting Notice - Dec. 16, 2021 Meeting Agenda - Dec. 16, 2021 Approved Minutes -Proposed Minutes - Dec. 16, 2021 Written Public Comment - Dec. 16, 2021 Transcript - Dec. 16, 2021 Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry

- > Remote Attendance Notice Kellom> Remote Attendance Notice Clark
- \_



- > Remote Attendance Notice Orton
- > Mapping Process and Procedures v 11.6 APPROVED Nov. 8
- > Approval of Amended Rules of Procedure
- > Proposed Amendments to Rules of Procedure Sept 30
- > 2022 Budget Approved 2021/11/18 with two 6 month subsets
- > Commission Final Vote Draft v12.21
- > Resolution 2021/12/01 Approve Commission Final Vote Process and Updated Mapping Process
- > Resolutions 2021/12/02-05 from Dec 2 Mtg
- > Braille Maps 2021/11/29 Final Proof Part 1
- > Braille Maps 2021/11/29 Final Proof Part 2

### Legal Filings - Dec. 13, 2021

- > MSC Order re: scheduling
- > Defendant's Answer to Complaint
- > Defendant's Brief in Support of Answer

### Legal Filings - Dec. 7, 2021

- > Plaintiffs' Emergency Verified Complaint
- > Brief in Support of Plaintiffs' Complaint
- > Exhibits to Emergency Verified Complaint

### MICRC Meeting - Lansing, MI - Dec. 2, 2021

Meeting Notice - **Dec. 2, 2021** Meeting Agenda - **Dec. 2, 2021** Approved Minutes -Proposed Minutes - **Dec. 2, 2021** Written Public Comment -Transcript - **Dec. 2, 2021** Other Meeting Materials -> **Remote Attendance Notice - Lange** > **Remote Attendance Notice - Wagner** 

- > Remote Attendance Notice Curry
- > Remote Attendance Notice Kellom
- > Remote Attendance Notice Clark
- > Letter submitted Nov. 30
- > Budget approved Nov. 18 with recommendation for +9 Meetings
- > Commission Final Vote Draft v12-1-21
- > 2022 Budget Approved 2021/11/18 with two 6 month subsets

### MICRC Meeting - Ann Arbor, MI - Nov. 18, 2021

Meeting Notice - Nov. 18, 2021 Meeting Agenda - Nov. 18, 2021 Approved Minutes -Proposed Minutes - Nov. 18, 2021 Written Public Comment Transcript Other Meeting Materials > Remote Attendance Notice - Lange
> Remote Attendance Notice - Wagner
> Remote Attendance Notice - Curry
> Remote Attendance Notice - Kellom
> 2022 Budget Approved October 20 2021 with DRAFT EDITS 2021-11-15
> CO Report 11-18-21

### MICRC Meeting - East Lansing, MI - Nov. 8, 2021

Meeting Notice - Nov. 8, 2021 Meeting Agenda - Nov. 8, 2021 Approved Minutes -Proposed Minutes - Nov. 8, 2021 Written Public Comment -Transcript -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner

- > Remote Attendance Notice Curry
- > Remote Attendance Notice Kellom
- > Remote Attendance Notice Witjes
- > Remote Attendance Notice Szetela
- > Remote Attendance Notice Clark
- > Remote Attendance Notice Valette

> MICRC Mapping Process and Procedures v11.6 APPROVED 2021-11-08

### MICRC Meeting - East Lansing, MI - Nov. 5, 2021

Meeting Notice - Nov. 5, 2021 Meeting Agenda - Nov. 5, 2021 Approved Minutes -Proposed Minutes - Nov. 5, 2021 Writter Public Comment -Transcript -Other Meeting Materials -

- > Remote Attendance Notice Lange
- > Remote Attendance Notice Wagner
- > Remote Attendance Notice Curry
- > Remote Attendance Notice Kellom
- > Remote Attendance Notice Szetela
- > DRAFT v11.04 Mapping Process and Procedures with Edits Redlined
- > DRAFT v11.04 Mapping Process and Procedures with Edits Accepted



MICRC Meeting - East Lansing, MI - Nov. 4, 2021 Meeting Notice - Nov. 4, 2021 Meeting Agenda - Nov. 4, 2021 Approved Minutes -Proposed Minutes - Nov. 4, 2021 Written Public Comment -Transcript -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Braille Estimate Lighthouse > Resolution 2021-11-02 Approve Braille Vendor

### MICRC Meeting - East Lansing, MI - Nov. 3, 2021

Meeting Notice - Nov. 3, 2021 Meeting Agenda - Nov. 3, 2021 Approved Minutes -Proposed Minutes - Nov. 3, 2021 Written Public Comment -Transcript -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom

### MICRC Meeting - East Lansing, MI - Nov. 2, 2021

Meeting Notice - Nov. 2, 2021 Meeting Agenda - Nov. 2, 2021 Approved Minutes -Proposed Minutes - Nov. 2, 2021 Writter Public Comment -Transcript -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner

- > Remote Attendance Notice Curry
- > Remote Attendance Notice Kellom
- > DRAFT Appendix A to Fink Bressack Contract Nov. 2
- > Resolution 2021-11-01 First Amendment to Fink Bressack Contract

MICRC Meeting - East Lansing, MI - Nov. 1, 2021 Meeting Notice - Nov. 1, 2021 Meeting Agenda - Nov. 1, 2021 Approved Minutes -Proposed Minutes - Nov. 1, 2021 Written Public Comment -Transcript - Nov. 1, 2021 Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Handley PowerPoint on voting patterns - Nov. 1, 2021

### MICRC Meeting - East Lansing, MI - Oct. 29, 2021

Meeting Notice - Oct. 29, 2021 Meeting Agenda - Oct. 29, 2021 Approved Minutes -Proposed Minutes - Oct. 29, 2021 Written Public Comment -Transcript - Oct. 29, 2021 Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom

### MICRC Meeting - East Lansing, MI - Oct. 28, 2021

Meeting Notice - Oct. 28, 2021 Meeting Agenda - Oct. 28, 2021 Approved Minutes -Proposed Minutes - Oct. 28, 2021 Written Public Comment -Transc Opt - Oct. 28, 2021 Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Compare SDs Overview

### MICRC Closed Session Meeting - East Lansing, MI - Oct. 27, 2021 Minutes closed session - Final - Submitted Jan. 10, 2022

MICRC Meeting - East Lansing, MI - Oct. 27, 2021 Meeting Notice - Oct. 27, 2021 Meeting Agenda - Oct. 27, 2021 Approved Minutes -Proposed Minutes - Oct. 27, 2021 Written Public Comment - Oct. 27, 2021 Transcript - Oct. 27, 2021 Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry

> Remote Attendance Notice - Kellom

### MICRC Hearing - Flint, MI (Dort Financial Center) - Oct. 26, 2021

Hearing Notice - Oct. 26, 2021
> Oct. 26, 2021 - Spanish
> Oct. 26, 2021 - Arabic
> Oct. 26, 2021 - Bengali
Hearing Agenda - Oct. 26, 2021
Approved Minutes Proposed Minutes - Oct. 26, 2021
Written Public Comment Transcript - Oct. 26, 2021
Other Hearing Materials > Remote Attendance Notice - Lange
> Remote Attendance Notice - Wagner
> Remote Attendance Notice - Curry
> Remote Attendance Notice - Kellom
> Remote Attendance Notice - Clark

### MICRC Hearing - Gaylord, MI (Treetops Resort) - Oct. 25, 2021

Hearing Notice - Oct. 25, 2021 > Oct. 25, 2021 - Spanish > Oct. 25, 2021 - Arabic > Oct. 25, 2021 - Bengali Hearing Agenda - Oct. 25, 2021 Approved Minutes -Proposed Minutes - Oct. 25, 2021 Written Public Comment -Transcript - Oct. 25, 2021 Other Hearing Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom Def. App. 124a

- > Remote Attendance Notice Clark
- > Remote Attendance Notice Weiss
- > Remote Attendance Notice Szetela

### MICRC Hearing - Grand Rapids, MI (DeVos Place) - Oct. 22, 2021

Hearing Notice - Oct. 22, 2021
> Oct. 22, 2021 - Spanish
> Oct. 22, 2021 - Arabic
> Oct. 22, 2021 - Bengali
Hearing Agenda - Oct. 22, 2021
Approved Minutes Proposed Minutes - Oct. 22, 2021
Written Public Comment Transcript - Oct. 22, 2021
Other Hearing Materials > Remote Attendance Notice - Lange
> Remote Attendance Notice - Wagner
> Remote Attendance Notice - Curry
> Remote Attendance Notice - Kellom

### MICRC Hearing - Lansing, MI (Lansing Center) - Oct. 21, 2021

Hearing Notice - Oct. 21, 2021 > Oct. 21, 2021 - Spanish > Oct. 21, 2021 - Arabic > Oct 21, 2021 - Bengali Hearing Agenda - Oct. 21, 2021 Approved Minutes -Proposed Minutes - Oct. 21, 2021 Written Public Comment -Transcript - Oct. 21, 2021 Other Hearing Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom

### MICRC Hearing - Detroit, MI (TCF Center) - Oct. 20, 2021

Hearing Notice - Oct. 20, 2021 > Oct. 20, 2021 - Spanish > Oct. 20, 2021 - Arabic > Oct. 20, 2021 - Bengali Hearing Agenda - Oct. 20, 2021 Approved Minutes -Proposed Minutes - Oct. 20, 2021 Written Public Comment -Transcript - Oct. 20, 2021
Other Hearing Materials > Remote Attendance Notice - Lange
> Remote Attendance Notice - Wagner
> Remote Attendance Notice - Curry
> Remote Attendance Notice - Kellom
> Remote Attendance Notice - Orton
> Compliance Analysis Tracking v10.18
> MPAP 9v10.10 Public Hearings and Debriefings
> Budget FY End 2021 w DRAFT 2022 Budget

### MICRC Meeting - East Lansing, MI - Oct. 12, 2021

Meeting Cancellation - Oct. 12, 2021 Meeting Notice - Oct. 12, 2021 CANCELLED Meeting Agenda -Approved Minutes -Proposed Minutes -Written Public Comment -Transcript -Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry

> Remote Attendance Notice - Kellom

### MICRC Meeting - East Lansing, MI - Oct. 11, 2021

Meeting Notice - Oct, 11, 2021 Meeting Agenda - Oct. 11, 2021 Approved Minutes -Proposed Minutes - Oct. 11, 2021 Written Public Comment -Transcript - Oct. 11, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Compliance Analysis Tracking v10.11

### MICRC Meeting - East Lansing, MI - Oct. 8, 2021

Meeting Notice - Oct. 8, 2021



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Meeting Agenda - Oct. 8, 2021 Approved Minutes -Proposed Minutes - Oct. 8, 2021 Written Public Comment -> Oct. 8, 2021 part 1 > Oct. 8, 2021 part 2 > Oct 8, 2021 part 3 Transcript - Oct. 8, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Remote Attendance Notice - Clark

### MICRC Meeting - East Lansing, MI - Oct. 7, 2021

Meeting Notice - Oct. 7, 2021 Meeting Agenda - Oct. 7, 2021 Approved Minutes -Proposed Minutes - Oct. 7, 2021 Written Public Comment - Oct. 7, 2021 Transcript - Oct. 7, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Remote Attendance Notice - Szetela > Remote Attendance Notice - Szetela

## > Resolutions Oct. 7, 2021

MICRC Meeting - East Lansing, MI - Oct. 6, 2021 Meeting Notice - Oct. 6, 2021 Meeting Agenda - Oct. 6, 2021 Approved Minutes -Proposed Minutes - Oct. 6, 2021 Written Public Comment -Transcript - Oct. 6, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner Def. App. 127a

- > Remote Attendance Notice Curry
- > Remote Attendance Notice Kellom
- > Remote Attendance Notice Clark
- > Remote Attendance Notice Szetela

### MICRC Meeting - East Lansing, MI - Oct. 5, 2021

Meeting Notice - Oct. 5, 2021 Meeting Agenda - Oct. 5, 2021 Approved Minutes -Proposed Minutes - Oct. 5, 2021 Written Public Comment - Oct. 5, 2021 Transcript - Oct. 5, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Remote Attendance Notice - Kellom

> Partisan fairness possible unacceptable scores

### MICRC Meeting - East Lansing, MI - Oct. 4, 2021

Meeting Notice - Oct. 4, 2021 Meeting Agenda - Oct. 4, 2021 Approved Minutes -Proposed Minutes - Oct. 4, 2021 Written Public Comment -Transcript - Oct. 4, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom

### MICRC Meeting - Troy, MI - Oct. 1, 2021

Meeting Notice - Oct. 1, 2021 Meeting Agenda - Oct. 1, 2021 Approved Minutes -Proposed Minutes - Oct. 1, 2021 Written Public Comment -Transcript - Oct. 1, 2021 Draft Maps -Other Meeting Materials -



- > Remote Attendance Notice Lange
- > Remote Attendance Notice Wagner
- > Remote Attendance Notice Curry
- > Remote Attendance Notice Kellom
- > Memo Proposed Amendments to MICRC Rules of Procedure Sept. 30
- > Proposed Amendments to MICRC Rules of Procedure Sept. 30
- > Measuring Partisan Fairness
- > Handley memo on three partisan fairness
- > 9-30-21 RAS revisions CD
- > 9-29-21 Eid v2a CD 188
- > MI CD 9-21 21v1 187
- > MI Senate 9-15-21 v16A
- > Partisan Fairness Copy of 9-15-21 v16A

### MICRC Meeting - Rochester, MI - Sept. 30, 2021 (5 p.m. to 8 p.m.)

Meeting Notice - Sept. 30, 2021 Meeting Agenda - Sept. 30, 2021 Approved Minutes -Proposed Minutes - Sept. 30 2021 Written Public Comment -Transcript - Sept. 30, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner

- > Remote Attendance Notice Curry
- > Remote Attendance Notice Kellom

### MICRC Meeting - Rochester, MI - Sept. 30, 2021 (10 a.m. to 4 p.m.)

Meeting Notice - Sept. 30, 3021 Meeting Agenda - Sept. 30, 2021 Approved Minutes -Proposed Minutes - Sept. 30, 2021 Written Public Comment -Transcript - Sept. 30, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Gud Marketing Proposal Sept. 30 > Resolution 2021-09-07 Approve Amended Rules of Procedure

> Resolution 2021-09-08 Promotional Consultant Contract

### MICRC Meeting - Detroit, MI - Sept. 29, 2021

Meeting Notice - Sept. 29, 2021, Sept. 29, 2021 - SPANISH Meeting Agenda - Sept. 29, 2021 Approved Minutes -Proposed Minutes - Sept. 29, 2021 Written Public Comment - Sept. 29, 2021 Transcript - Sept. 29, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry

> Remote Attendance Notice - Kellom

### MICRC Meeting - Detroit, MI - Sept. 28, 2021

Meeting Notice - **Sept. 28, 2021** Meeting Agenda - **Sept. 28, 2021** Approved Minutes -Proposed Minutes - **Sept. 28, 2021** Written Public Comment -Transcript - **Sept. 28, 2021** Draft Maps -

Other Meeting Materials -

- > Remote Attendance Notice Lange
- > Remote Attendance Notice Wagner
- > Remote Attendance Notice Curry
- > Remote Attendance Notice Kellom
- > Remote Attendance Notice Clark
- > Resolution 2021-09-02 Election of Chair
- > Resolution 2021-09-03 Election of Vice-Chair
- > Resolution 2021-09-04 Approve Appendix C for EDS
- > Resolution 2021-09-05 Approve Direct Mail Campaign Contract
- > Resolution 2021-09-06 Approval of Contract with Local Counsel

> CO Update Sept. 28

### MICRC Meeting - Detroit, MI - Sept. 27, 2021

Meeting Notice - **Sept. 27, 2021** Meeting Agenda - **Sept. 27, 2021** Approved Minutes -Proposed Minutes - **Sept. 27, 2021** Written Public Comment - **Sept. 27, 2021** Transcript - **Sept. 27, 2021** Draft Maps - Other Meeting Materials -

- > Remote Attendance Notice Lange
- > Remote Attendance Notice Wagner
- > Remote Attendance Notice Curry
- > Remote Attendance Notice Kellom
- > Remote Attendance Notice Clark
- > Remote Attendance Notice Weiss
- > Budget approved as amended 2021-07-29 updated as of 08-31
- > Direct Mail Bidders 9-14 part 1
- > Direct Mail Bidders 9-14 part 2
- > Memo Proposed Amendments to MICRC Rules of Procedure Sept. 26
- > Proposed Amendments to MICRC Rules of Procedure Sept. 26

### MICRC Meeting - Mt. Pleasant, MI - Sept. 24, 2021

Meeting Notice - Sept. 24, 2021 Meeting Agenda -Sept. 24, 2021 Approved Minutes -Proposed Minutes - Sept. 24, 2021 Written Public Comment - Sept. 24, 2021 Transcript - Sept. 24, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Remote Attendance Notice - Szetela

> v9.6 Mapping Process and Procedure Approved

### MICRC Meeting - Mt. Pleasant, MI - Sept. 23, 2021 (5 (p.m. to 8 p.m.)

Meeting Notice - Sept. 23, 2021 Meeting Agenda - Sept. 23, 2021 Approved Minutes -Proposed Minutes - Sept. 23, 2021 Written Public Comment -Transcript - Sept. 23, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom

- > Remote Attendance Notice Renom
- > Remote Attendance Notice Szetela

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MICRC Meeting - Mt. Pleasant, MI - Sept. 23, 2021 (10 a.m. to 4 p.m.) Meeting Notice - Sept. 23, 2021 Meeting Agenda - Sept. 23, 2021 Approved Minutes -Proposed Minutes - Sept. 23, 2021 Written Public Comment -Transcript - Sept. 23, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > Remote Attendance Notice - Szetela > DRAFT Appendix C to EDS Contract Sept. 21

### MICRC Meeting - East Lansing, MI - Sept. 22, 2021

Meeting Notice - Sept. 22, 2021 Meeting Agenda - Sept. 22, 2021 Approved Minutes -Proposed Minutes - Sept. 22, 2021 Written Public Comment -Transcript - Sept. 22, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner

- > Remote Attendance Notice Curry
- > Remote Attendance Notice Kellom

### MICRC Meeting - East Lansing, MI - Sept. 21, 2021 (9 a.m. to 6 p.m.)

- Meeting Notice Sept. 21, 2021 Meeting Agenda - Sept. 21, 2021 Approved Minutes -Proposed Minutes - Sept. 21, 2021 Written Public Comment -Transcript - Sept. 21, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry
- > Remote Attendance Notice Szetela
- > Remote Attendance Notice Kellom

### MICRC Committee Meeting - East Lansing, MI - Sept. 21, 2021 (8 a.m. to 9 a.m.)

Meeting Notice - Sept. 21, 2021 Meeting Agenda - Sept. 21, 2021 Approved Minutes -Proposed Minutes - Sept. 21, 2021 Written Public Comment -Transcript -Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Szetela > Remote Attendance Notice - Kellom > Honigman Response RFP Sept. 20 > Lancaster Cover Letter Response Local Counsel RFP Sept. 8 > Lancaster RFP Response Sept. 8 > Lancaster Docs Previously Submitted for GC > Lancaster Political Contributions 2010 to Present > Lancaster Writing Sample July 26, 20211 > Local Counsel RFP Fink Bressack

### MICRC Meeting - East Lansing, MI - Sept. 20, 2021

Meeting Notice - Sept. 20, 2021 Meeting Agenda - Sept. 20, 2021 Approved Minutes -Proposed Minutes - Sept. 20, 2021 Written Public Comment -Transcript - Sept. 20, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Kellom > Map Presentation - Sept. 20

### MICRC Meeting - Allendale, MI - Sept. 16, 2021 (5 p.m. to 8 p.m.)

Meeting Notice - Sept. 16, 2021 Meeting Agenda - Sept. 16, 2021 Approved Minutes -Proposed Minutes - Sept. 16, 2021 Written Public Comment -Transcript -Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange Def. App. 133a

- > Remote Attendance Notice Wagner
- > Remote Attendance Notice Curry
- > Remote Attendance Notice Szetela
- > Remote Attendance Notice Kellom
- > Remote Attendance Notice Clark

### MICRC Meeting - Allendale, MI - Sept. 16, 2021 (1 p.m. to 4 p.m.)

Meeting Notice - Sept. 16, 2021 Meeting Agenda - Sept. 16, 2021 Approved Minutes -Proposed Minutes - Sept. 16, 2021 Written Public Comment -Transcript - Sept. 16, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Szetela > Remote Attendance Notice - Kellom > Remote Attendance Notice - Clark

### MICRC Meeting - East Lansing, MI - Sept. 15, 2021

Meeting Notice - Sept. 15, 2021 Meeting Agenda - Sept. 15, 2021 Approved Minutes -Proposed Minutes - Sept. 15, 2021 Written Public Comment -Transcript - Sept. 15, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Rem Re Attendance Notice - Curry > Remote Attendance Notice - Szetela > Remote Attendance Notice - Lett

### MICRC Meeting - East Lansing, MI - Sept. 14, 2021

Meeting Notice - Sept. 14, 2021 Meeting Agenda - Sept. 14, 2021 Approved Minutes -Proposed Minutes - Sept. 14, 2021 Written Public Comment -> Sept. 14, 2021 - Part 1 > Sept. 14, 2021 - Part 2 https://www.michigan.gov/micrc/0,10083,7-418-106525---,00.html > Sept. 14, 2021 - Part 3
> Sept. 14, 2021 - Part 4
Transcript - Sept. 14, 2021
Draft Maps Other Meeting Materials > Remote Attendance Notice - Lange
> Remote Attendance Notice - Wagner

- > Remote Attendance Notice Curry
- > Remote Attendance Notice Szetela
- > Correspondence from Dr. Petering

### MICRC Meeting - East Lansing, MI - Sept. 13, 2021

Meeting Notice - Sept. 13, 2021 Meeting Agenda - Sept. 13, 2021 Approved Minutes -Proposed Minutes - Sept. 13, 2021 Written Public Comment - Sept. 13, 2021 Transcript - Sept. 13, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry

> Remote Attendance Notice - Szetela

### MICRC Meeting - Big Rapids, MI - Sept. 9, 2021 (5 p.m. to 8 p.m.)

Meeting Notice - Sept. 9, 2021 Meeting Agenda - Sept. 9, 2021 Approved Minutes -Proposed Minutes - Sept. 9, 2021 Written Public Comment -Transcript - Sept. 9, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry

### MICRC Meeting - Big Rapids, MI - Sept. 9, 2021 (12 p.m. to 4 p.m.) Meeting Notice - Sept. 9, 2021 Meeting Agenda - Sept. 9, 2021 Approved Minutes -Proposed Minutes - Sept. 9, 2021

https://www.michigan.gov/micrc/0,10083,7-418-106525---,00.html

Written Public Comment - Sept. 9, 2021

Transcript - Sept. 9, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry

### MICRC Meeting - East Lansing, MI - Sept. 8, 2021

Meeting Notice - Sept. 8, 2021 Meeting Agenda - Sept. 8, 2021 Approved Minutes -Proposed Minutes - Sept. 8, 2021 Written Public Comment -Transcript - Sept. 8, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Vallette > Remote Attendance Notice - Curry

### MICRC Meeting - East Lansing, MI - Sept. 7, 2021

Meeting Notice - Sept. 7, 2021 Meeting Agenda - Sept. 7, 2021 Approved Minutes -Proposed Minutes - Sept. 7, 2021 Written Public Comment -Transcript - Sept. 7, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Curry > Remote Attendance Notice - Kellom > COI Cluster Index > In Person Comments Geographical Considerations > Written Public Comment - Aug. 17, 2021 > Mapping Process and Procedure Version 9.6 > PR Contractor Bid - SE MI > PR Contractor Bid - MI > Direct Mail campaign - Statement of Work

MICRC Meeting - Ann Arbor, MI - Sept. 2, 2021 (5 p.m. to 8 p.m.)

Meeting Notice - Sept. 2, 2021



Meeting Agenda - Sept. 2, 2021 Approved Minutes -Proposed Minutes - Sept. 2, 2021 Written Public Comment -Transcript - Sept. 2, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Clark

### MICRC Meeting - Ann Arbor, MI - Sept. 2, 2021 (1 p.m. to 4 p.m.)

Meeting Notice - Sept. 2, 2021 Meeting Agenda - Sept. 2, 2021 Approved Minutes -Proposed Minutes - Sept. 2, 2021 Written Public Comment - Sept. 2, 2021 Transcript - Sept. 2, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Clark

> Handley presentation - Sept. 2

### MICRC Meeting - Detroit, MI - Sept. 1, 2021

Meeting Notice - Sept. 1, 2021 Meeting Agenda - Sept. 1, 2021 Approved Minutes -Proposed Minutes - Sept. 1, 2021 Written Public Comment - Sept. 1, 2021 Transcript - Sept. 1, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Draft COI Process and Considerations v8.31 > Report from Moon Michigan COI Aug. 26 > COI Clusters for Michigan > Executed Resolution Aug. 30

> Meeting Materials Sept. 1

### MICRC Meeting - Detroit, MI - Aug. 31, 2021

Meeting Notice - Aug. 31, 2021



Meeting Agenda - **Aug. 31, 2021** Approved Minutes -Proposed Minutes - **Aug. 31, 2021** Written Public Comment -Transcript - **Aug. 31, 2021** Draft Maps -Other Meeting Materials -> **Remote Attendance Notice - Lange** > **Remote Attendance Notice - Wagner** 

### MICRC Meeting - Detroit, MI - Aug. 30, 2021

Meeting Notice - Aug. 30, 2021 Meeting Agenda - Aug. 30, 2021 Approved Minutes -Proposed Minutes - Aug. 30, 2021 Written Public Comment - Aug. 30, 2021 Transcript - Aug. 30, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Szetela > Remote Attendance Notice - Weiss > 2nd Round of Public Hearings > 2nd Round of Public Hearings Dates and Locations > Copy of Written Public Comments Aug. 17 > In Person Comments > Plans from PC Portal as of Aug. 8

> Report from Moon MI COI Aug. 26

### MICRC Meeting - Acme, MI - Aug. 26, 2021 (5 p.m. to 8 p.m.)

Meeting Notice - Aug. 26, 2021 Meeting Agenda - Aug. 26, 2021 Approved Minutes -Proposed Minutes - Aug. 26, 2021 Written Public Comment - Aug. 26, 2021 Transcript - Aug. 26, 2021 Draft Maps -Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner

MICRC Meeting - Acme, MI - Aug. 26, 2021 (1 p.m. to 4 p.m.)

Meeting Notice - Aug. 26, 2021

Meeting Agenda - Aug. 26, 2021 Approved Minutes -Proposed Minutes - Aug. 26, 2021 Written Public Comment - Aug. 26, 2021 Transcript - Aug. 26, 2021 Draft Maps -> Witjes alternative draft map ZIP Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Resolution Establish Total Cost of Litigation Counsel and Modify Contract Terms - Aug. 20 > Michigan COI - Aug. 26, 2021 > COI Shape File MICRC Meeting - East Lansing, MI - Aug. 24, 2021 Meeting Notice -Aug. 24, 2021 Meeting Agenda - Aug. 24, 2021 Approved Minutes -

Proposed Minutes - Aug. 24, 2021

Written Public Comment -

Transcript - Aug. 24, 2021

Draft Maps -

> South Central Afternoon Draw Aug. 24 ZIP

> House South East Morning Draw - Aug. 24 JPG

> House South East Morning Draw - Aug. 24 PDF

Other Meeting Materials -

> Remote Attendance Notice - Lange

> Remote Attendance Notice - Wagner

> Formal Invitation to Bid List Draft Aug. 23

> Resolution Establish Total Cost of Local Counsel RFP and Extend Formal Invitation to Bid -Aug. 18, 2021

### MICRC Meeting - East Lansing, MI - Aug. 23, 2021

Meeting Notice - Aug. 23, 2021 Meeting Agenda - Aug. 23, 2021 Approved Minutes -Proposed Minutes - Aug. 23, 2021 Written Public Comment - Aug. 23, 2021 Transcript - Aug. 23, 2021 Draft Maps -> Collaborative Draft State House Map > Collaborative Draft State Senate Map > Eid Alternative Draft Map



Other Meeting Materials -

- > Remote Attendance Notice Lange
- > Remote Attendance Notice Wagner
- > Mapping Process Approved Aug. 19, 2021
- > Proposed Edits to Mapping Process and Procedures Aug. 22, 2021
- > Resolution Approve Revised Mapping Process and Procedures Aug. 16, 2021
- > Resolution Approve Direct Purchase of Direct Mail List for Rural and Downriver Aug. 17, 2021
- > V8.22 Mapping Process and Procedures

### MICRC Meeting - East Lansing, MI - Aug. 20, 2021

Meeting Notice - Aug. 20, 2021 Meeting Agenda - Aug. 20, 2021 Approved Minutes -Proposed Minutes - Aug. 20, 2021 Written Public Comment - Aug. 20, 2021 Transcript - Aug. 20, 2021 Draft maps -> Comm First Plan SE Mich - Aug. 20, 2021 DBF > Comm Plan SE region - Aug. 20, 2021 PDF > Comm Plan SE region - Aug. 20, 2021 EXEL > Comm Plan SE region Aug. 20, 2021 [PG > Comm Plan SE region - Aug. 20, 2021 ZIP Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner

> Written and emailed Public Comments re Geographical Areas thru July 29, 2021

### MICRC Meeting - East Lansing, MI - Aug. 19, 2021

Meeting Notice - Aug. 19, 2021 Meeting Agenda - Aug. 19, 2021 Approved Minutes -Proposed Minutes - Aug. 19, 2021 Written Public Comment - Aug. 19, 2021 Transcript - Aug. 19, 2021 Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Draft Mapping Process and Procedure Final (v8.17) > Resolution 2021.08.06 Approve Mapping Process and Procedures > Draft Procurement Review Policy Revisions Aug. 14

- > Resolution 2021.08.09 Approve Amended Procurement Guidelines
- > Resolution 2021.08.10 Approve Issuance of Local Counsel RFP
- > Draft Contract Robert Half Legal Aug. 18

- > Resolution 2021.08.11 Approve Contract with RHG for Paralegal Services
- > Resolution 2021.08.12 Approve bids for Direct Mail Campaign
- > Resolution 2021.08.13 Promotional Consultant Service
- > Resolution 2021.08.14 Media Buys 2nd Round of Public Hearings
- > Resolution 2021.08.15 Approve Purchase of Translation Services
- > MI 2020 St Senate Dist Table
- > MI 2020 St House Districts Tables
- > MI 2020 County Data Tables
- > EDS Census Data Analysis and Compilation
- > Written and Emailed Public Comments re. Geographical Areas Aug. 17

### MICRC Meeting - Detroit, MI - Aug. 13, 2021 (Canceled)

Cancelation Meeting Notice - Aug. 13, 2021

### MICRC Meeting - Detroit, MI - Aug. 12, 2021

Meeting Notice - Aug. 12, 2021 Meeting Agenda - Aug. 12, 2021 Approved Minutes -

Proposed Minutes - Aug. 12, 2021

Written Public Comment - Aug. 12, 2021

Transcript - Aug. 12, 2021

Other Meeting Materials -

> Remote Attendance Notice - Lange

- > Remote Attendance Notice Wagner
- > Executed Resolutions

> Draft Mapping Schedule v8.11.3

- > Resolution Approve Revised Meeting Schedule Aug. 3, 2021
- > Resolution Approve Additional Billboard Ads Aug. 7, 2021
- > Resolution Approve Direct Mail Campaign Aug. 8, 2021
- > Resolution Approve Draft of Procedures for Mapping Meetings Aug. 6, 2021
- > Resolution Approve Draft of COI and Public Comment Process Considerations Aug. 4, 2021
- > Resolution Approve Draft of Mapping Software Guidelines Re a Quorum Aug. 5, 2021
- > Mapping Compendium Part 1
- > Mapping Compendium Part 2

### MICRC Meeting - Detroit, MI - Aug. 6, 2021

Meeting Notice - Aug. 6, 2021 Meeting Agenda - Aug. 6, 2021 Approved Minutes -Proposed Minutes - Aug. 6, 2021 Written Public Comment -Transcript - Aug. 6, 2021 Other Meeting Materials -

> Remote Attendance Notice - Lange

- > Remote Attendance Notice Wagner
- > Measuring Partisan Fairness by Dr. Lisa Handley
- > Dr. L. Handley Memo on Three Partisan Fairness Measures
- > COI Aggregation

### MICRC Meeting - Detroit, MI - Aug. 5, 2021

Meeting Notice - **Aug. 5, 2021** Meeting Agenda - **Aug. 5, 2021** Approved Minutes -Proposed Minutes - **Aug. 5, 2021** Written Public Comment - **Aug. 5, 2021** Transcript -

Other Meeting Materials -

- > Remote Attendance Notice Lange
- > Remote Attendance Notice Wagner
- > Notice and Report of an Informal Contract
- > Encore Quote 2669 1020 July 29 and 30, 2021
- > Risk Acceptance Request to Obtain Quickbooks
- > Considerations for the Calendar Beginning Aug. 24
- > MICRC Resolution Aug. 1, 2021 Revise Commission Meeting Schedule
- > Correspondence from James Whitehorne re Census
- > MI Redistricting Regions JPG
- > Public Comment Aug. 5, 2021

### MICRC Committee Meeting - Detroit, MI - Aug. 5, 2021

Committee Notice - Aug. 5, 2021 Committee Agenda - Aug. 5, 2021 Approved Minutes -Proposed Minutes - Aug. 5, 2021 Written Public Comment -Transcript -Other Committee Meeting Materials -> Litigation Counsel RFP Scoring Sheet > Proposal by BakerHostetler LLP July 2021 > RFP 920 21000002217 Litigation Counsel

> RFP Appendix A 920 210000002217

### MICRC Meeting - Detroit, MI - July 30, 2021

Meeting Notice - July 30, 2021 Meeting Agenda - July 30, 2021 Approved Minutes - July 30, 2021 Proposed Minutes - July 30, 2021 Written Public Comment -Transcript - July 30, 2021 Other Meeting Materials -

- > Remote Attendance Notice Lange
- > Remote Attendance Notice Wagner
- > Correspondence from Dr. Petering
- > MI Redistricting Regions

### MICRC Meeting - Detroit, MI - July 29, 2021

Meeting Notice - July 29, 2021 Meeting Agenda - July 29, 2021 Approved Minutes - July 29, 2021 Proposed Minutes - July 29, 2021 Written Public Comment - July 29, 2021 Transcript - July 29, 2021 Other Meeting Materials -

- > Remote Attendance Notice Lange
- > Remote Attendance Notice Wagner
- > Resolution 7/5/2021 Amendment to Hammersmith Contract
- > Resolution 7/6/2021 Amendment to Pastula Contract
- > Resolution 7/7/2021 Amendment to Woods III Contract
- > Budget 7/15/2021
- > Resolution 2021/07/08 Approve Revisions to Budget
- > Resolution 7/9/2021 AV Contracts for Meetings
- > Resolution 7/10/2021 MAB TV Advertising Buys
- > Draft Amendment to Employment Contracts
- > Community Outreach PowerPoint

### MICRC Meeting - Lansing, MI - July 23, 2021

Meeting Notice - July 23, 2021 Meeting Agenda - July 23, 2021 Approved Minutes - July 23, 2021 Proposed Minutes - July 23, 2021 Written Public Comment -Transcript - July 23,2021 Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner > Remote Attendance Notice - Wagner

- > Remote Attendance Notice Clark
- > Draft MICRC Calendar updated July 15, 2021
- > MICRC Adopted Schedule v7-15
- > Notice of Emergency Procurement July 22 & 23, 2021
- > Resolution Approve Emergency AV Procurement July 4, 2021

### MICRC Meeting - Lansing, MI - July 22, 2021

Meeting Notice - July 22, 2021

Meeting Agenda - July 22, 2021 Approved Minutes - July 22, 2021 Proposed Minutes - July 22, 2021 Written Public Comment - July 22, 2021 Transcript - July 22, 2021 Other Meeting Materials -> Remote Attendance Notice - Lange > Remote Attendance Notice - Wagner

### MICRC Meeting - Benton Harbor, MI - July 15, 2021

Meeting Notice - July 15, 2021 Meeting Agenda - July 15, 2021 Approved Minutes - July 15, 2021 Proposed Minutes - July 15, 2021 Written Public Comment - July 15, 2021 Transcript -

Other Meeting Materials -

> Notice of Remote Attendance - Lange

> Notice of Remote Attendance Kellom

- > Notice of Remote Attendance Clark
- > Draft Calendar of Activities July 14, 2021
- > Schedule July 15 through September 30 adopted July 9, 2021
- > Resolution July 01, 2021 Approve Revised Commission Meeting Schedule
- > Memo on Assuring Quorums and Notification of Absences
- > Financial Procedures DRAFT July 5, 2021
- > Resolution July 2, 2021 Approve Financial Procedures
- > Taylor'd Planning Contract Summary
- > Notice of Emergency Procurement
- > Resolution July 3, 2021 Approve Emergency AV Procurement
- > Adopted Schedule V-7-15

### July 9, 2021 - Michigan Supreme Court Order on Petition for Relief Order Off2891

### MICRC Meeting - July 9, 2021

Meeting Notice - July 9, 2021 Meeting Agenda - July 9, 2021 Approved Minutes - July 9, 2021 Proposed Minutes - July 9, 2021 Written Public Comment - July 9, 2021 Transcript - July 9, 2021 Other Meeting Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner RECEIVED by MSC 1/18/2022 10:30:25 PM

- > Notice of Remote Attendance Szetela
- > Draft email to written public comment submissions
- > Adelson DOJ Constitution July 9
- > Draft Proposed Schedule July and Aug.
- > Amended RFP Litigation Counsel Adopted
- > Measuring Partisan Fairness by Dr. Lisa Handley

### MICRC Meeting - July 8, 2021

Meeting Notice - July 8, 2021 Meeting Agenda - July 8, 2021 Approved Minutes - July 8, 2021 Proposed Minutes - July 8, 2021 Written Public Comment - July 8, 2021 Transcript - July 8, 2021 Other Meeting Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > Notice of Remote Attendance - Szetela > Public feedback overview through July 4 > Adelson Implicit Bias July 8 > Communities of Interest Process - July 7, 2021

### MICRC Hearing - Grand Rapids, MI (DeVos Place) - July 1, 2021

Hearing Notice - **HEARING NOTICE** Hearing Agenda - **HEARING AGENDA** Approved Minutes - **July 1, 2021** Proposed Minutes - **July 1, 2021** Written Public Comment -Transcript - **July 1, 2021** Other Hearing Materials -> Notice of Remote Attendance - **Lange** > Notice of Remote Attendance - **Wagner** 

### Q MICRC Meeting - Grand Rapids (DeVos Place) - July 1, 2021

Meeting Notice - **MEETING NOTICE** Meeting Agenda - **MEETING AGENDA** Approved Minutes - **July 1, 2021** Proposed Minutes - **July 1, 2021** Written Public Comment - **July 1, 2021** (also see below in other materials) Transcript - **July 1, 2021** Other Hearing Materials -> Notice of Remote Attendance - **Lange** > Notice of Remote Attendance - **Wagner** 

- > Public Comment Submission Redistricting possible solution XLSX
- > MICRC Draft Timeline and Roadmap
- > MICRC Calendar July 1, 2021

### MICRC Meeting - June 30, 2021

Meeting Notice - June 30, 2021 Meeting Agenda - June 30, 2021 Approved Minutes - June 30, 2021 Proposed Minutes - June 30, 2021 Written Public Comment -Transcript - June 30, 2021 Other Meeting Materials -> Thought Starters for Process - June 28, 2021 > Redistricting Process v 1.0

### MICRC Hearing - Muskegon, MI (VanDyk Mortgage Convention Center) - June 29, 2021

Hearing Notice - HEARING NOTICE Hearing Agenda - HEARING AGENDA Approved Minutes - June 29, 2021 Proposed Minutes - June 29, 2021 Written Public Comment -Transcript - June 29, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner

### MICRC Meeting - Muskegon, MI (VanDyk Mortgage Convention Center) - June 29, 2021

Meeting Notice - MEETING NOTICE Meeting Agenda - MEETING AGENDA Approved Minutes - June 29, 2021 Proposed Minutes - June 29, 2021 Written Public Comment - June 29, 2021 Transcript - June 29, 2021 Other **b**earing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > Notice of Remote Attendance - Szetela > Resolutions - June 29, 2021 > Resolution Issue RFP for Litigation Counsel - June 4, 2021 > Org Chart - June 28, 2021 > Resolution Org Chart - June 5, 2021 > Part 4 Training Census Data #1 PPTX > Part 4 Training Census Data #2 PPTX > Part 4 Training Census Data #3 PPTX > Part 4 Training Census Data #4 PPTX Def. App. 146a

### MICRC Committee Meeting - June 28, 2021

Committee Meeting Notice - June 28, 2021 Committee Meeting Agenda - June 28, 2021 Approved Minutes - June 28, 2021 Proposed Minutes - June 28, 2021 Written Public Comment - June 28, 2021 Transcript - June 28, 2021 Other Committee Meeting Materials -> Thought Starters for Redistricting Process - June 26, 2021 > Draft Redistricting Process Flow Chart - June 26, 2021

### MICRC Committee Meeting - June 25, 2021

Committee Meeting Notice - June 25, 2021 Committee Meeting Agenda -June 25,2021 Approved Minutes - June 25, 2021 Proposed Minutes - June 25, 2021 Written Public Comment -Transcript - June 25, 2021 Other Committee Meeting Materials -> Questions from MICRC to Consultants > Thought Starters for Redistricting Process Decisions > Election Data Services Contract

### MICRC Hearing - Warren, MI (MRCC Banquet Center) - June 24, 2021

Hearing Notice - HEARING NOTICE Hearing Agenda - HEARING AGENDA Approved Minutes - June 24, 2021 Proposed Minutes - June 24, 2021 Written Public Comment -Transcript - June 24, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > Notice of Remote Attendance - Orton

### MICRC Meeting - Warren, MI (MRCC Banquet Center) - June 24, 2021

Meeting Notice - MEETING NOTICE Meeting Agenda - MEETING AGENDA Approved Minutes - June 24, 2021 Proposed Minutes - June 24, 2021 Written Public Comment -Transcript - June 24, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange Def. App. 147a

- > Notice of Remote Attendance Wagner
- > Notice of Remote Attendance Orton
- > MI Counties Population Plan Tables revamped XLS
- > Kim Brace MI Counties Population Plan Tables revamped
- > Kim Brace Part 2 Redistricting Elements Census Data
- > Part 3 Redistricting Elements Census Data Race PPTX
- > Population Estimates 2020 XLSX
- > Morgan RD mapping Part 1
- > Morgan RD mapping Part 2
- > Morgan RD mapping Part 3
- > Morgan RD mapping Part 4
- > Morgan RD mapping Part 5
- > MI Counties Pop Plan Tables June 24 XLS

### MICRC Hearing - Port Huron, MI (Blue Water Convention Center) - June 22, 2021

Hearing Notice - HEARING NOTICE Hearing Agenda - HEARING AGENDA Approved Minutes - June 22, 2021 Proposed Minutes - June 22, 2021 Written Public Comment -Transcript - June 22, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > Notice of Remote Attendance - Orton

### MICRC Meeting - Port Huron, MI (Blue Water Convention Center) - June 22, 2021

Meeting Notice - MEETING NOTICE Meeting Agenda - MEETING AGENDA Approved Minutes - June 22, 2021 Proposed Minutes - June 22, 2021 Written Public Comment - June 22, 2021 Transcript - June 22, 2021 Other **Q**earing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > Notice of Remote Attendance - Orton > Reflections on the Listening Tour 6/22 > Fairness and Decision Making > Resolution June 3, 2021 Update Commission Meeting Schedule per June 22 Agenda

### MICRC Hearing - Detroit, MI (TCF CENTER) - June 17, 2021

Hearing Notice - **HEARING NOTICE** Hearing Agenda - **HEARING AGENDA** Approved Minutes - **June 17, 2021** 



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Proposed Minutes - June 17, 2021 Written Public Comment -Transcript - **June 17, 2021** Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > Notice of Remote Attendance - Szetela

### MICRC Meeting - Detroit, MI (TCF CENTER) - June 17, 2021

Meeting Notice - MEETING NOTICE Meeting Agenda - MEETING AGENDA Approved Minutes - June 17, 2021 Proposed Minutes - June 17, 2021 Written Public Comment -Transcript - June 17, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > Notice of Remote Attendance - Szetela > Reflections on the Listening Tour > Regular Meeting Schedule Updated 6-16-21 > Resolution for Revised Commission Meeting Schedule > Kim Brace Part 2 Redistricting Elements Census Data > Kim Brace MI Counties Pop Plan Tables

MICRC Meeting - Detroit, MI (The Village Dome at Fellowship Chapel) - June 15, 2021 Hearing Notice - HEARING NOTICE Hearing Agenda - HEARING AGENDA Approved Minutes - June 15, 2021 Proposed Minutes - June 15, 2021 Written Public Comment -Transcript - June 15, 2021 Other **Rearing Materials** -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner

### MICRC Meeting - Detroit, MI (The Village Dome at Fellowship Chapel) - June 15, 2021

Meeting Notice - MEETING NOTICE Meeting Agenda - MEETING AGENDA Approved Minutes - June 15, 2021 Proposed Minutes - June 15, 2021 Written Public Comment - June 15, 2021 Transcript -Other Hearing Materials https://www.michigan.gov/micrc/0,10083,7-418-106525---,00.html Def. App. 149a

- > Notice of Remote Attendance Lange
- > Notice of Remote Attendance Wagner
- > Reflections on the Listening Tour
- > Budget May 31, 2021
- > Adelson Redistricting and Race
- > Communications and Outreach Update PowerPoint

### Legal Filing - June 10, 2021

Responsive brief of Petitioners MICRC/SOS Responsive brief of Dept. of Attorney General in support League of Women Voters amicus brief in support Voters Not Politicians amicus brief in support Responsive brief of Dept. of Attorney General in opposition Senate amicus brief in opposition

### MICRC Hearing - Pontiac, MI - June 10, 2021

Hearing Notice - HEARING NOTICE Hearing Agenda - HEARING AGENDA Approved Minutes - June 10, 2021 Proposed Minutes - June 10, 2021 Written Public Comment -Transcript - June 10, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner

### MICRC Meeting - Pontiac, MI - June 10, 2021

Meeting Notice - MEETING NOTICE Meeting Agenda - MEETING AGENDA Approved Minutes - June 10, 2021 Proposed Minutes - June 10, 2021 Written Public Comment -Transcript - June 10, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > 2021 Schedule Updated > Next Steps and Future Agenda Items

### MICRC Hearing - Novi, MI - June 8, 2021

Hearing Notice - HEARING NOTICE Agenda -Approved Minutes - June 8, 2021 Proposed Minutes - June 8, 2021 Written Public Comment - June 8, 2021 https://www.michigan.gov/micrc/0,10083,7-418-106525---,00.html Def. App. 150a



Transcript - **June 8, 2021** 

Other Hearing Materials -

> Notice of Remote Attendance - Lange

> Notice of Remote Attendance - Wagner

### MICRC Hearing - Dearborn, MI - June 3, 2021

Hearing Notice - HEARING NOTICE Agenda - HEARING AGENDA Approved Minutes - June 3, 2021 Proposed Minutes - June 3, 2021 Written Public Comment -Transcript - June 3, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner

### MICRC Meeting - Dearborn, MI - June 3, 2021

Meeting Notice - MEETING NOTICE Agenda - MEETING AGENDA Approved Minutes - June 3, 2021 Proposed Minutes - June 3, 2021 Written Public Comment - June 3, 2021 Transcript - June 3, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > Resolution - Change Commission Meetings - 5/14/2021 > MEMO for options 6/2/2021 > Executed Resolutions - 6/3/2021

### MICRC Hearing - Flint, MI - June 1, 2021

Hearing Notice - HEARING NOTICE Agenda - HEARING AGENDA Approred Minutes - June 1, 2021 Proposed Minutes - June 1, 2021 Written Public Comment - June 1, 2021 Transcript - June 1, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > Legal Staffing Agency Updated Dates and Posted June 1

MICRC Hearing - Lansing, MI - May 27, 2021 Hearing Notice - HEARING NOTICE Agenda - HEARING AGENDA Approved Minutes - May 27, 2021 Proposed Minutes - May 27, 2021 Written Public Comment -Transcript - May 27, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner

### MICRC Meeting - Lansing, MI - May 27, 2021

Meeting Notice - MEETING NOTICE Agenda - MEETING AGENDA Approved Minutes - May 27, 2021 Proposed Minutes - May 27, 2021 Written Public Comment - May 27, 2021 Transcript - May 27, 2021 Other Meeting Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > Executed Resolutions > Resolution - Waive potential conflicts of interest - May 13, 2021 > Resolution - Hire Executive Assistant > MICRC Election Data Services Contract

### MICRC Hearing - Midland, MI - May 25, 2021

Hearing Notice - HEARING NOTICE Agenda - HEARING AGENDA Approved Minutes - May 25, 2021 Proposed Minutes - May 25, 2021 Written Public Comment -Transcript - May 25, 2021 Other Hearing Materials -> Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner

### MICRC Hearing - Gaylord, MI - May 20, 2021

Meeting Notice - HEARING NOTICE Agenda - HEARING AGENDA Approved Minutes - May 20, 2021 Proposed Minutes - May 20, 2021 Written Public Comment -Transcript - May 20, 2021 Other Hearing Materials -> Notice of Remote Attendance - Szetela

> Notice of Remote Attendance - Clark > Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner MICRC Meeting - May 20, 2021 Meeting Notice - MEETING NOTICE Agenda - MEETING AGENDA Approved Minutes - May 20, 2021 Proposed Minutes - May 20, 2021 Written Public Comment -Transcript - May 20, 2021 **Other Meeting Materials** > Notice of Remote Attendance - Szetela > Notice of Remote Attendance - Clark > Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > Proposed Minutes - May 6, 2021 > Proposed Minutes - May 11, 2021 > Travel Regulations

### MICRC Hearing - Marquette, MI - May 18, 2021

Meeting Notice - May 18, 2021 Agenda - May 18, 2021 Approved Minutes - May 18, 2021 Proposed Minutes - May 18, 2021 Written Public Comment -Transcript - May 18, 2021 Other Hearing Materials > Notice of Remote Attendance - Clark > Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner

### MICRC Hearing - Kalamazoo, MI - May 13, 2021

Meeting Notice - May 13, 2021 Agenda - May 13, 2021 Approved Minutes - May 13, 2021 Proposed Minutes - May 13, 2021 Written Public Comment - May 13, 2021 Transcript - May 13, 2021 Other Meeting Materials > Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner > MICRC Federal Compliance VRA Legal Counsel Contract



MICRC Meeting - May 13, 2021 - Cancelled Meeting Cancellation - May 13, 2021

### MICRC Hearing - Jackson, MI - May 11, 2021

Meeting Notice - May 11, 2021 Agenda - May 11, 2021 Approved Minutes - May 11, 2021 Proposed Minutes - May 11, 2021 Written Public Comment - May 11, 2021 Transcript - May 11, 2021 Other Meeting Materials > Notice of Remote Attendance - Lange > Notice of Remote Attendance - Wagner

### MICRC Meeting - May 6, 2021

Meeting Notice - May 6, 2021 Agenda - May 6, 2021 Approved Minutes - May 6, 2021 Proposed Minutes - May 6, 2021 Written Public Comment - May 6, 2021 Transcript - May 6, 2021 Other Meeting Materials -> Resolution Issue Bid Requests for Legal Staffing May 1, 2021 > Procurement Request Legal Staffing May 4 with Updates > Notice of Emergency Procurement > Jackson AV Quote Chase Creative > Resolution Emergency Procurement Jackson AV - May 2, 2021 > Resolution Muskegon Public Hearing AV Contract Chase Creative - May 3, 2021 > Resolution Public Hearing AV Contracts with Encore - May 4, 2021 > Conflict of Interest Policy Draft Submitted May 4, 2021 > Resolution Conflict of Interest Policy May 5, 2021 > Litigation Counsel SOW Draft Submitted May 4, 2021 > Resolution Issue RFP Litigation Counsel - May 6, 2021 > Budget updated May 3, 2021 > Resolution Approve Revisions to Budget May 7, 2021 > Resolution Discharge Consultant Procurement Committees - May 8, 2021 > Resolution Cancel May 13 meeting - May 9, 2021 > CO Update - May 6, 2021 > Conflicts Policy Presentation - May 6, 2021 > Litigation RFP Presentation - May 6, 2021 MICRC Committee Meeting - Apr. 29, 2021 Meeting Notice -

Approved Minutes -

Proposed Minutes -Written Public Comment -Transcript - Apr. 29, 2021 Other Meeting Materials -

### MICRC Meeting - Apr. 29, 2021

Meeting Notice - Apr. 29, 2021 Agenda - Apr. 29, 2021 Approved Minutes - Apr. 29, 2021 Proposed Minutes - Apr. 29, 2021 Written Public Comment - Apr. 29, 2021 Transcript - Apr. 29, 2021 Other Meeting Materials -> Legal Services Staffing > Resolution Billboard Advertising for Public Hearings - Apr. 17, 2021 > Travel Regulations > Resolution Issue Bid Request for Legal Staffing Agency Apr. 19, 2021 > Resolution Extend Remote Meeting for May 6 - Apr. 18, 2021 > Resolution Media Buys for Public Hearings - Apr. 16, 2021 > Resolution Offer Contract for Videographer Services - Apr. 15, 2021 > Resolution AV Contracts for Public Hearings - Apr. 20, 2021 > Public Hearing Logistics > April 29 Apportionment > Communications and Outreach Update and Video Production Services

### MICRC Meeting - Apr. 22, 2021

Meeting Notice - Apr. 22, 2021 Agenda - Apr. 22, 2021

Approved Minutes - Apr. 22, 2021

Proposed Minutes - Apr. 22, 2021

Written Public Comment - Apr. 22, 2021

Transcript - Apr. 22, 2021

Other Meeting Materials -

> Memo - Public Comment Process Apr. 21, 2021

> Draft Commissioners Roles in the Public Comment Process

> One-Pager Live Public Comment Guidelines

- > Communities of Interest Process
- > Videographer Evaluation Form
- > Cutters Updated Pricing Commercial
- > Cutters updated pricing Vignette
- > Cutters Studios
- > Lambert pricing clarified
- > Lambert Video Production
- > Cold Box Bid

- > Message Makers Proposal
- > Imageworks Proposal
- > Good Fruit Proposal
- > Good Fruit Process
- > Good Fruit Production Plan
- > Nicolini Video Production Services Proposal Apr. 21, 2021
- > Unodeuce Video Proposal 2021
- > Resolution Offer Contract for Videographer Services Apr. 15, 2021

MICRC - Meeting Notices & Materials

> Video Production Services Bid

### Legal Filing - April. 20, 2021

- > Motion 01 expedite MI Supreme Court
- > Brief 01 support petition MI Supreme Court Part 1
- > Brief 01 support petition MI Supreme Court Part 2
- > Brief 01 exhibits and cover part 1
- > Brief 01 exhibits and cover part 2
- > Brief 01 exhibits and cover part 3
- > Brief 01 exhibits and cover part 4
- > Petition for Relief

### MICRC Meeting - Apr. 16, 2021

Meeting Notice - Apr. 16, 2021

- Agenda **Apr. 16, 2021**
- Approved Minutes Apr. 16, 2021
- Proposed Minutes Apr. 16, 2021
- Written Public Comment Apr. 16, 2021
- Transcript Apr. 16, 2021
- Other Meeting Materials -
- > Resolution Offer Contracts to Promotional Consultants Apr. 13, 2021
- > Public Hearings and town hall forums
- > Draft Regular Commission Meeting Agenda during Public Hearing Weeks
- > University Outreach
- > M3Group MICRC SEM Quote
- > M3G Qup MICRC SEM Timeline
- > RFP response McConnell
- > SOW Quote Final Michigan
- > SOW Quote Final Michigan Timeline
- > Quote Van Dyke Horn MICRC Campaign April 2021 SEM
- > Statewide proposal VDH MICRC Proposal April 2021
- > PR Presentation

### MICRC Meeting - Apr. 15, 2021

Meeting Notice - Apr. 15, 2021 Agenda - April 15, 2021 Approved Minutes - April 15, 2021 https://www.michigan.gov/micrc/0,10083,7-418-106525---,00.html Def. App. 156a



Proposed Minutes - Apr. 15, 2021 Written Public Comment - Apr. 15, 2021 Transcript - Apr. 15, 2021 Other Meeting Materials -

- > Bids for Video Production Services
- > Resolution Bids for Video Production Services
- > Resolution to Reconsider Vote on Resolution Apr. 1, 2021
- > Resolution Apr. 10, 2021 to Extend VRA Legal Counsel Contract
- > Legacy Format Data Submission Apr. 14, 2021
- > Resolution April 11, 2021 Add Language to Request for Relief from MI Supreme Court
- > Draft Communications and Outreach Plan Apr. 12
- > Resolution Apr. 4, 2021 Communications and Outreach Plan
- > Members Responsibility Matrix Apr. 12, 2021
- > MICRC Market Research

> Resolution Apr. 11, 2021 FINAL Add Language to Request for Relief from the MI Supreme Court

### MICRC Meeting - Apr. 8, 2021

- Meeting Notice Apr. 8, 2021
- Agenda Apr. 8, 2021
- Approved Minutes Apr. 8, 2021
- Proposed Minutes Apr. 8, 2021
- Written Public Comment Apr. 8, 2021
- Transcript Apr. 8, 2021
- Other Meeting Materials -
- > Proposed VRA Counsel Interview Questions
- > Resolution Approve VRA Legal Counsel Consultant
- > PR Consultant Bid SE Michigan
- > PR Consultant Bid except SE Michigan
- > Resolution Issue Bid Requests for Promotional Consultants
- > Resolution Revised Public Hearing Dates and Locations
- > Resolution Contracts with Venues for Public Hearings
- > Remote and Hybrid Meeting Procedures draft
- > Resolution Remote and Hybrid Meetings
- > Resolution Lost Stolen Damaged State Equipment Policy
- > Lost Stolen Equipment Policy Draft
- > FY Budget as of 3/31/2021
- > Michigan Pledge and Land Acknowledgments
- > Policy for Approval of Expenses Approved
- > Commission Members Responsibility Matrix Mar. 30
- > Proposed Communications and Outreach Plan

### MICRC Committee Meeting - Mar. 30, 2021

Meeting Notice - Mar. 30, 2021

Agenda - Mar. 30, 2021

Approved Minutes - Mar. 30, 2021 Proposed Minutes - Mar. 30, 2021 Written Public Comment - Mar. 30, 2021 Transcript - Mar. 30, 2021 Other Meeting Materials -> Bryan Sells VRA RFP Submission > Clark Hill VRA RFP Submission > Crimcard VRA RFP Submission > Federal Compliance VRA RFP Submission > Honigman VRA RFP Submission > Tueth VRA RFP Submission > Voting Rights Act Legal Counsel RFP > Sandler VRA RFP Submission Part 1 > Sandler VRA RFP Submission Part 2 > Vendor Ranking and Rationale **MICRC Meeting - Mar. 30, 2021** 

Meeting Notice - Mar. 30, 2021 Agenda - Mar. 30, 2021 Approved Minutes - Mar. 30, 2021 Proposed Minutes - Mar. 30, 2021 Written Public Comment - Mar. 30, 2021 Transcript - Mar, 30, 2021 Other Meeting Materials -> Resolution - Revised Public Hearing Schedule and Locations

- > Resolution Invitations for Presentations by VRA Legal Counsel Firms
- > Resolution Approve Continued Electronic "Virtual" Meetings
- > Commission Member Responsibilities
- > Memo Extend Virtual Meetings
- > Public Hearings Itinerary and Schedule

### MICRC Meeting - Mar. 25, 2021

Meeting Notice - Mar. 25, 2021 Agend A Mar. 25, 2021 Approved Minutes - Mar. 25, 2021 Proposed Minutes - Mar. 25, 2021 Written Public Comment - Mar. 25, 2021 Transcript - Mar. 25, 2021 Other Meeting Materials -> Memo Proposed Extension Dates final Submitted Mar. 23 > Resolution - Date Relief for MI Supreme Court Petition > Acronyms > Orientation Glossary > Executive Assistant Job Posting > Resolution - Strategic Plan https://www.michigan.gov/micrc/0,10083,7-418-106525---,00.html Def. App. 158a

- > Draft Strategic Plan
- > Sunshine Resolution
- > Communications Policy
- > March 25 Resolution Date Relief for MI Supreme Court Petition Page 1

### MICRC Meeting - Mar. 18, 2021

Meeting Notice - Mar. 18, 2021 Agenda - Mar. 18, 2021 Approved Minutes - Mar. 18, 2021 Proposed Minutes - Mar. 18, 2021 Written Public Comment - Mar. 18, 2021 Transcript - Mar. 18, 2021 Other Meeting Materials -> Resolution Finalize EDS Appendix and Contract > Resolution Logo > Sunshine Week Resolution Text > Sunshine Week Resolution

### MICRC Meeting - Mar. 11, 2021

Meeting Notice - Mar. 11, 2021 Agenda - Mar. 11, 2021 Approved Minutes - Mar. 11, 2021 Proposed Minutes - Mar. 11, 2021 Written Public Comment - Mar. 11, 2021 Transcript - Mar. 11, 2021 Other Meeting Materials -> Resolution - Budget - Feb. 13, 2021 > Resolution Public Hearing Locations - Feb. 12, 2021 > Draft FY Budget as of Mar. 9, 2021 > Public Hearing Proposed Locations > Communications and Outreach Planning

### MICRC Meeting - Mar. 5, 2021

Meeting Notice - Mar. 5, 2021 Agenda - Mar. 5, 2021 Approved Minutes - Mar. 5, 2021 Proposed Minutes - Mar. 5, 2021 Written Public Comment - Mar. 5, 2021 Transcript - Mar. 5, 2021 Other Meeting Materials -> Turning Maps Into Ballots PowerPoint Presentation > Resolution Action Regarding Census Delay

- > Resolution Marketing Contract
- > Revised Public Hearings Schedule

- > Resolutions Public Hearings Locations
- > Vendor Questions and Answers VRA draft Submitted March 3
- > Resolution Approving the Line Drawing Firm

### MICRC Meeting - Mar. 4, 2021

Meeting Notice - Mar. 4, 2021 Agenda - Mar. 4, 2021 Approved Minutes - Mar. 4, 2021 Proposed Minutes - Mar. 4, 2021 Written Public Comment - Mar. 4, 2021 Transcript - Mar. 4, 2021 Other Meeting Materials -> MICRC Resolution Approving the Line Drawing Firm > Revised Proposed Timeline for Engaging VRA Consultant

### MICRC Meeting - Feb. 25, 2021

Meeting Notice - Feb. 25, 2021 Agenda - Feb. 25, 2021 Approved Minutes - Feb. 25, 2021 Proposed Minutes - Feb. 25, 2021 Written Public Comment - Feb. 25, 2021 Transcript - Feb. 25, 2021 Other Meeting Materials -> DRAFT Revised VRA RFP - Feb. 24, 2021 > Proposed Feb. 23, 2021 MICRC Minutes Line Drawing and Redistricting Technical Services Committee > Resolution Feb. 7, 2021 Invitation for Presentations by Mapping Firms to the MICRC > VRA Legal Counsel RFP Personnel Appendix

### MICRC Committee Meeting - Feb. 23, 2021

Meeting Notice - Feb. 23, 2021 Agenda - Feb. 23, 2021 Approved Minutes - Feb. 23, 2021 Proposed Minutes - Feb. 23, 2021 Written Public Comment - Feb. 23, 2021 Transcript - Feb. 23, 2021 Other Meeting Materials -> Election Data Services > Redistricting Partners

- > RelA2ve
- > Haystaq

> Proposed Line Drawing and Redistricting Technical Services Committee

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MICRC Meeting - Feb. 18, 2021 Meeting Notice - Feb. 18, 2021 Agenda - Feb. 18, 2021 Approved Minutes - Feb. 18, 2021 Proposed Minutes - Feb. 18, 2021 Written Public Comment - Feb. 18, 2021 Transcript - Feb. 18, 2021 Other Meeting Materials -> FOIA Policy Draft 2 > FOIA Form - Draft 2 > Resolution FOIA Procedures and Guidelines > Communication Policy - Draft 2 > Resolution - Communication Policy > Procurement Review Procedures and Guidelines Draft 2 > Resolution 2 - Procurement Procedures and Guidelines > Marketing and Advertising Statement of Work > Memo - Princeton Draft Budget > Public Hearings PPT

### MICRC Meeting - Feb. 11, 2021

Meeting Notice - Feb. 11, 2021 Agenda - Feb. 11, 2021 Approved Minutes - Feb. 11, 2021 Proposed Minutes - Feb. 11, 2021 Written Public Comment - Feb. 11, 2021 Transcript - Feb. 11, 2021

Other Meeting Materials -

- > 2021 Key Dates
- > Communications Policy Draft
- > FOIA Policy Draft
- > Memo OMA Guidance for Attending Meetings and Conferences
- > Resolution Discharge Personnel Search Committees
- > Resolution to Approve Communication Policy
- > Resolution to Approve FOIA Procedures and Guidelines
- > RFP Review Policy Draft 1 Feb. 10, 2021
- > FOIA Presentation
- > Presentation on Communications Policy and Goals
- > Presentation on Selecting Consultants

### MICRC Meeting - Feb. 4, 2021

Meeting Notice - Feb. 4, 2021 Agenda - Feb. 4, 2021 Approved Minutes - Feb. 4, 2021 Proposed Minutes - Feb. 4, 2021 Written Public Comment - Feb. 4, 2021 https://www.michigan.gov/micrc/0,10083,7-418-106525---,00.html Transcript - Feb. 4, 2021 Other Meeting Materials -> Rules of Procedure - Feb. 2, 2021 > Proposal - Rules of Procedure - Feb. 1, 2021 > Adopted - Rules of Procedure - Feb. 4, 2021 > Proposed Timelines for Engaging Consultants

### **MICRC Meeting - Jan. 30, 2021**

Meeting Notice - Jan. 30, 2021 Agenda - Jan. 30, 2021 Approved Minutes - Jan. 30, 2021 Proposed Minutes - Jan. 30, 2021 Written Public Comment - Jan. 30, 2021 Transcript - Jan. 30, 2021 Other Meeting Materials -> Mapping RFP Vendor Questions > Resolution - Rules of Procedure - Jan. 08, 2021 > Updated Commissioner Responsibility Chart - Jan. 28, 2021 > Resolution ICRC RFP for VRA Legal Counsel - Jan. 07, 2021

### MICRC Meeting - Jan. 28, 2021

Meeting Notice - Jan. 28, 2021 Agenda - Jan. 28, 2021 Approved Minutes - Jan. 28, 2021 Proposed Minutes - Jan. 28, 2021 Written Public Comment - Jan. 28, 2021 Transcript - Jan. 28, 2021 Other Meeting Materials -> Proposed 2021 Meeting Schedule > Proposed 2021 Key Dates > Draft Rules of Procedure > Budget FY 2021 as of Jan. 26, 2021 > Links to VRA Refresher and Continued Education > MemBers Responsibilities as of Jan. 21, 2021

### MICRC Meeting - Jan. 21, 2021

Meeting Notice - Jan. 21, 2021 Agenda - Jan. 21, 2021 Approved Minutes - Jan. 21, 2021 Proposed Minutes - Jan. 21, 2021 Written Public Comment - Jan. 21, 2021 Transcript - Jan. 21, 2021 Other Meeting Materials -> Resolution - Hiring of Communications and Outreach Director

- > Resolution Approval of RFP for line drawing
- > Continuing Education
- > Rob Suber PowerPoint on Redistricting Tools & RFP

### MICRC Meeting - Jan. 14, 2021

Meeting Notice - Jan. 14, 2021 Agenda - Jan. 14, 2021 Approved Minutes - Jan. 14, 2021 Proposed Minutes - Jan. 14, 2021 Written Public Comment - Jan. 14, 2021 Transcript - Jan. 14, 2021 Other Meeting Materials -> The Big Picture Timeline

### MICRC Meeting - Jan. 12, 2021

Meeting Notice - Jan. 12, 2021 Agenda - Jan. 12, 2021 Approved Minutes - Jan. 12, 2021 Proposed Minutes - Jan. 12, 2021 Written Public Comment - Jan. 12, 2021 Transcript - Jan. 12, 2021 Other Meeting Materials -> Conflicts of Interest PPTX > Communications and Outreach Director Interview Questions > Communications Director Candidates online presence > Communications and Outreach Director Candidate Applications and Supplemental Materials > Bill Froehlich > Janet Lebson > Walter Sorg

> Edward Woods

### MICRC Meeting - Jan. 7, 2021

Meeting Notice - Jan. 7, 2021 Agenda - Jan. 7, 2021 Approved Minutes - Jan. 7, 2021 Proposed Minutes - Jan. 7, 2021 Written Public Comment - Jan. 7, 2021 Transcript - Jan. 7, 2021 Other Meeting Materials -> Hiring of General Counsel > Interview recommendations for Communications and Outreach Director > Policy for approval or expenses > Staff Organizational Chart > Commissioner Correspondence

# RECEIVED by MSC 1/18/2022 10:30:25 PM

> Communications and Outreach Director Candidate Applications and Supplemental Materials

- > Bill Froehlich
- > Sonja Howell
- > Amy Hybels
- > Janet Lebson
- > Walter Sorg
- > Edward Woods
- > Andrea Taylor (withdrew candidacy)

### MICRC Meeting - Dec. 17, 2020

Meeting Notice - **Dec. 17, 2020** Agenda - **Dec. 17, 2020** Approved Minutes - **Dec. 17, 2020** Proposed Minutes - **Dec. 17, 2020** Written Public Comment - **Dec. 17, 2020** Transcript - **Dec. 17, 2020** Other Meeting Materials -> **Commissioner Responsibility Matrix** 

### MICRC Meeting - Dec. 10, 2020

Meeting Notice - **Dec. 10, 2020** Agenda - **Dec. 10, 2020** Approved Minutes - **Dec. 10, 2020** Proposed Minutes - **Dec. 10, 2020** Written Public Comment - **Dec. 10, 2020** Transcript - **Dec. 10, 2020** Other Meeting Materials -> **Commissioner Responsibility Matrix** 

- > General Counsel Candidates Online Presence
- > Proposed General Counsel Interview Questions
- > Draft General Counsel Interview Notes
- > General Counsel Finalist Candidate Applications and Supplemental Materials
- > Monifa Gray
- > Kath**&**ine Kerwin
- > James Lancaster
- > Julianne Pastula

### MICRC Meeting - Dec. 4, 2020

Meeting Notice - **Dec. 4, 2020** Agenda - **Dec. 4, 2020** Approved Minutes - **Dec. 4, 2020** Proposed Minutes - **Dec. 4, 2020** Written Public Comment - **Dec. 4, 2020**  Transcript - **Dec. 4, 2020** Other Meeting Materials -> **Offer letter** PDF

### MICRC Meeting - Dec. 3, 2020

Meeting Notice - **Dec. 3, 2020** Agenda - **Dec. 3, 2020** Approved Minutes - **Dec. 3, 2020** Proposed Minutes - **Dec. 3, 2020** Written Public Comment - **Dec. 3, 2020** Transcript - **Dec. 3, 2020** Other Meeting Materials -> **Commissioner Responsibility Matrix** 

### MICRC Meeting - Dec. 1, 2020

Meeting Notice - Dec. 1, 2020 Agenda - Dec. 1, 2020 Approved Minutes - Dec. 1, 2020 Proposed Minutes - Dec. 1 2020 Written Public Comment - Dec. 1, 2020 Transcript - Dec. 1, 2020 Other Meeting Materials -> McMillin Correspondence > Commissioner Responsibility Matrix > General Counsel scoring sheet > Executive Director Finalist Candidate Applications and Supplemental Materials > Brandon Brice > Suann Courtright Hammersmith > Vickie Devould > Sheryl Mitchell > Janette Phillips > Amna Seibold

### MICRC committee Meeting - Nov. 20, 2020

Meeting Notice - Nov. 20, 2020 Agenda - Nov. 20, 2020 Approved Minutes - Nov. 20, 2020 Proposed Minutes - Nov. 20, 2020 Written Public Comment - Nov. 20, 2020 Transcript - Nov. 20, 2020 Other Meeting Materials -> Draft ED Interview Questions > ED Candidates Online Footprint > Interview and Hiring Best Practices

## >

MICRC Committee Meeting - Nov. 20, 2020 Meeting Notice - Nov. 20, 2020 Agenda - Nov. 20, 2020 Approved Minutes - Nov. 20, 2020 Proposed Minutes - Nov. 20, 2020 Written Public Comment - Nov. 20, 2020 Transcript - Nov. 20, 2020 Other Meeting Materials -> Proposed General Counsel Scoring Sheet > Proposed General Counsel Total Scoring Sheet Summary Sorted > Interview and Hiring Best Practices

### MICRC Committee Meeting - Nov. 19, 2020

Meeting Notice - Nov. 19, 2020 Agenda - Nov. 19, 2020 Approved Minutes - Nov. 19, 2020 Proposed Minutes - Nov. 19, 2020 Written Public Comment - Nov. 19, 2020 Transcript - Nov. 19, 2020 Other Meeting Materials -> ICRC Discussed Correspondence > Commissioners Responsibility Matrix

### MICRC Meeting - Nov. 10, 2020

Meeting Notice - Nov. 10, 2020 Agenda - Nov. 10, 2020 Approved Minutes - Nov. 10, 2020 Proposed Minutes - Nov. 10, 2020 Written Public Comment -Transcript -Other Meeting Materials -> Final Code of Conduct > Commissioner Responsibilities Matrix > FY21QCRC Budget > Laptop selection

### MICRC Committee Meeting - Nov. 10, 2020

Meeting Notice - Nov. 10, 2020 Agenda - Nov. 10, 2020 Approved Minutes - Nov. 10, 2020 Proposed Minutes - Nov. 10, 2020 Written Public Comment -Transcript - Nov. 10, 2020 Other Meeting Materials -> Commissioner Responsibilities Matrix Def. App. 166a



- > Draft RFP Statement of Work Redistricting Assistance
- > Draft RFP Statement of Work Outreach Consultants
- > Draft RFP Statement of Work Community of Interest Polarized Voting Analyst Assistance and Expertise

### MICRC Meeting - Oct. 17, 2020

Meeting Notice - Oct. 17, 2020 Agenda - Oct. 17, 2020 Approved Minutes - Oct. 17, 2020 Proposed Minutes - Oct. 17, 2020 Written Public Comment - Oct. 17, 2020 Transcript - Oct. 17, 2020 Other Meeting Materials -> Commission Member Responsibility Matrix > Lobbying Code of Contact > Draft ICRC Thank You Email

> FY21 ICR Budget

### MICRC Committee Meeting - Oct. 17, 2020

Meeting Notice - Oct. 17, 2020 Agenda - Oct. 17, 2020 Approved Minutes - Oct. 17, 2020 Proposed Minutes - Oct. 17, 2020 Written Public Comment - Oct, 17, 2020 Transcript - Oct. 17, 2020 Other Meeting Materials -> Commissioner Responsibility Matrix > ICRC Executive Director Search Agenda

### MICRC Meeting - Oct. 1, 2020

Meeting Notice - Oct. 1, 2020 Agenda - Oct. 1, 2020 Approved Minutes - Oct. 1, 2020 Proposed Minutes - Oct. 1, 2020 Written Public Comment - Oct. 1, 2020 Transcript - Oct. 1, 2020 Other Meeting Materials -> Documents > Proposal from Commissioner Eid

### MICRC Meeting - Sept. 25, 2020

Meeting Notice - Sept. 25, 2020 Agenda - Sept. 25, 2020 Approved Minutes - Sept. 25, 2020 Proposed Minutes - Sept. 25, 2020 Def. App. 167a



Written Public Comment - **Sept. 25, 2020** Transcript - **Sept. 25, 2020** Other Meeting Materials -> **Draft Documents** 

### MICRC Meeting - Sept. 18, 2020 PM

Meeting Notice - Sept. 18, 2020 Agenda - Sept. 18, 2020 Approved Minutes - Sept. 18, 2020 Proposed Minutes - Sept. 18, 2020 Written Public Comment - Sept. 18, 2020 Transcript - Sept. 18, 2020 Other Meeting Materials -> Agenda and orientation materials

### MICRC Meeting - Sept. 18, 2020 AM

Meeting Notice - Sept. 18, 2020 Agenda - Sept. 18, 2020 Approved Minutes - Sept. 18, 2020 Proposed Minutes - Sept. 18, 2020 Written Public Comment - Sept. 18, 2020 Transcript - Sept. 18, 2020 AM Other Meeting Materials -> Agenda and orientation materials

### MICRC Meeting - Sept. 17, 2020 PM

Meeting Notice - Sept. 17, 2020 Agenda - Sept. 17, 2020 Approved Minutes - Sept. 17, 2020 Proposed Minutes - Sept. 17, 2020 Written Public Comment - Sept. 17, 2020 Transcript - Sept. 17, 2020 PM Other Meeting Materials -> Agenda and orientation materials

### MICRC Meeting - Sept. 17, 2020 AM

Meeting Notice - Sept. 17, 2020 Agenda - Sept. 17, 2020 Approved Minutes - Sept. 17, 2020 Proposed Minutes - Sept. 17, 2020 Written Public Comment - Sept. 17, 2020 Transcript - Sept. 17, 2020 AM Other Meeting Materials -> Agenda and orientation materials



Contact Us | MICRC, PO Box 30318, Lansing MI 48909 | Subscribe for Updates

Related Documents Wagner-Gronda Attorney Letter 🔁

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**MICRC Home** 

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### 10: $\omega$ **Total Population Racial Demographics as Percent of Total Population** Voting Age Population **Racial Demographics as Percent of Voting Population** DISTRICT NH White NH Black NH Asian NH White NH Black Hispanic Minority **NH** Asian Hispanic Minority 90.86% 775,179 0.03% 1 775,375 196 89.45% 0.92% 0.55% 2.04% 10.55% 633,080 81.6% 0.99% 0.55% 1.62% 9.14% 89.17% 2 775,179 -0.02%√ 2.21% 774,997 -182 87.82% 1.99% 0.55% 4.65% 12.18% 606,868 78.3% 0.56% 3.82% 3 775,414 775,179 235 70.15% 10.67% 29.85% 597,448 77.0% 74.00% 10.25% 2.95% 8.81% 11.06% 2.99% 4 774,600 775,179 -0.07%√ 24.91% 593,972 76.7% 78.42% 7.71% 2.46% 7.05% -579 75.09% 8.32% 2.46% 8.56% 5 774,544 775,179 -635 15.50% 606,306 0.88% 4.13% 84.50% 4.07% 0.86% 5.18% 78.3% 86.61% 4.04% 6 775,273 775,179 0.01%√ 94 69.15% 9.90% 10.38% 4.96% 30.85% 619,426 79.9% 71.51% 9.53% 10.12% 4.34% 7 775,238 775,179 59 79.90% 5.89% 3.20% 5.66% 20.10% 611,160 78.8% 82.03% 5.67% 3.23% 4.77% 8 775,229 775,179 0.01%√ 50 73.40% 14.85% 1.11% 5.35% 26.60% 606,390 78.2% 76.23% 13.91% 1.14% 4.44% 9 774,962 775,179 -217 87.94% 2.25% 1.31% 3.86% 12.06% 606,770 78.3% 89.59% 2.18% 1.28% 3.14% 10 775,218 775,179 0.00%√ 39 72.75% 13.27% 6.08% 3.03% 27.25% 620,272 80.0% 75.73% 12.09% 5.78% 2.56% 11 775,568 775,179 389 68.30% 12.94% 8.67% 5.33% 31.70% 624,065 80.5% 70.86% 12.50% 8.39% 4.47% 12 775,247 775,179 0.01%√ 68 45.95% 44.43% 1.81% 3.26% 54.05% 596,111 76.9% 47.46% 43.81% 1.97% 2.85% 13 775,666 775,179 487 36.80% 45.33% 2.89% 10.26% 63.20% 592,734 76.4% 39.55% 44.70% 2.89% 8.77% Assigned 10077331

2022

**Total Pop** 10077331 0

Unassigned

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DISTRICT	POPTOT	PercentTot	POPWH_A	PPopWh_A	POPBL_A	PPopBL_A	POPNA_A	PPopNA_A	POPAS_A	PPopAS_A	POPPI_A	PPopPI_A		PPopOT_A	POPXX	P2plusRace	PopNonW	PPopNonW
1	775,375	100.00%	699,352	90.20%	7,242	0.93%	19,104	2.46%	4,335	0.56%	262	0.03%	4,943	0.64%	40,137	5.18%	76,023	9.80%
2	774,997	100.00%	694,248	89.58%	15,815	2.04%	6,551	0.85%	4,335	0.56%	218	0.03%	11,434	1.48%	42,396	5.47%	80,749	10.42%
3	775,414	100.00%	561,063	72.36%	88,124	11.36%	5,063	0.65%	23,379	3.02%	239	0.03%	39,972	5.15%	57,574	7.42%	214,351	27.64%
4	774,600	100.00%	597,296	77.11%	65,976	8.52%	4,726	0.61%	19,307	2.49%	266	0.03%	29,135	3.76%	57,894	7.47%	177,304	22.89%
5	774,544	100.00%	667,117	86.13%	32,336	4.17%	3,854	0.50%	6,768	0.87%	221	0.03%	14,754	1.90%	49,494	6.39%	107,427	13.87%
6	775,273	100.00%	546,417	70.48%	77,914	10.05%	2,311	0.30%	80,709	10.41%	282	0.04%	12,26	1.58%	55,373	7.14%	228,856	29.52%
7	775,238	100.00%	632,720	81.62%	47,103	6.08%	3,276	0.42%	24,983	3.22%	307	0.04%	13,780	1.78%	53,069	6.85%	142,518	18.38%
8	775,229	100.00%	583,351	75.25%	117,174	15.11%	3,297	0.43%	8,746	1.13%	299	0.04%	12,423	1.60%	49,939	6.44%	191,878	24.75%
9	774,962	100.00%	691,045	89.17%	17,894	2.31%	2,497	0.32%	10,254	1.32%	183	0.02%	8,756	1.13%	44,333	5.72%	83,917	10.83%
10	775,218	100.00%	570,035	73.53%	103,706	13.38%	2,031	0.26%	47,336	6.11%	168	0.02%	7,921	1.02%	44,021	5.68%	205,183	26.47%
11	775,568	100.00%	539,241	69.53%	101,828	13.13%	2,142	0.28%	67,402	8.69%	190	0.02%	16,278	2.10%	48,487	6.25%	236,327	30.47%
12	775,247	100.00%	362,007	46.70%	346,735	44.73%	2,227	0.29%	14,155	1.83%	150	0.02%	10,447	1.35%	39,526	5.10%	413,240	53.30%
13	775,666	100.00%	301,082	38.82%	354,732	45.73%	4,182	0.54%	22,591	2.91%	266	0.03%	39,741	5.12%	53,072	6.84%	474,584	61.18%

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DISTRICT	POPTOT	PercentTot	POPNHWH_A	PPopNHWh_A	POPNHBL_A	PPopNHBI_A	POPNHNA_A	PPopNHNA_A	POPNHAS_A	PPopNHAS_A	POPNHPI_A	PPopNHPI_A	POPNHOT_A	PPopNHOT_A	POPHISP	PPopHisp	POPNHXX	PPopNHXX	PopNonW	PPopNonW
1	775,375	100.00%	693,536	89.45%	7,095	0.92%	18,448	2.38%	4,249	0.55%	213	0.03%	2,027	0.26%	15.847	2.04%	33,960	4.38%	81,839	10.55%
2	774,997	100.00%	680,601	87.82%	15,384	1.99%	5,617	0.72%	4,261	0.55%	179	0.02%	2,034	0.26%	36,060	4.65%	30,861	3.98%	94,396	12.18%
3	775,414	100.00%	543,947	70.15%	85,736	11.06%	2,625	0.34%	23,169	2.99%	189	0.02%	2,741	0.35%	82,760	10.67%	34,247	4.42%	231,467	29.85%
4	774,600	100.00%	581,638	75.09%	64,440	8.32%	2,902	0.37%	19,021	2.46%	218	0.03%	3,201	0.41%	66,314	8.56%	36,866	4.76%	192,962	24.91%
5	774,544	100.00%	654,497	84.50%	31,525	4.07%	2,972	0.38%	6,682	0.86%	202	0.03%	2,528	0.33%	40 <mark>,12</mark> 1	5.18%	36,017	4.65%	120,047	15.50%
6	775,273	100.00%	536,084	69.15%	76,766	9.90%	1,526	0.20%	80,490	10.38%	253	0.03%	3,582	0.46%	38,423	4.96%	38,149	4.92%	239,189	30.85%
7	775,238	100.00%	619,440	79.90%	45,625	5.89%	2,297	0.30%	24,798	3.20%	283	0.04%	2,920	0.38%	43.903	5.66%	35,972	4.64%	155,798	20.10%
8	775,229	100.00%	569,036	73.40%	115,145	14.85%	2,438	0.31%	8,633	1.11%	285	0.04%	2,711	0.35%	41,495	5.35%	35,486	4.58%	206,193	26.60%
9	774,962	100.00%	681,480	87.94%	17,417	2.25%	1,935	0.25%	10,146	1.31%	162	0.02%	2,104	0.27%	29,890	3.86%	31,828	4.11%	93,482	12.06%
10	775,218	100.00%	563,998	72.75%	102,856	13.27%	1,575	0.20%	47,161	6.08%	131	0.02%	2,727	0.35%	23,457	3.03%	33,313	4.30%	211,220	27.25%
11	775,568	100.00%	529,713	68.30%	100,392	12.94%	1,377	0.18%	67,225	8.67%	174	0.02%	3,279	0.42%	41,334	5.33%	32,074	4.14%	245,855	31.70%
12	775,247	100.00%	356,248	45.95%	344,458	44.43%	1,674	0.22%	14,038	1.81%	123	0.02%	3,776	0.49%	25,253	3.26%	29,677	3.83%	418,999	54.05%
13	775,666	100.00%	285,433	36.80%	351,619	45.33%	2,020	0.26%	22,415	2.89%	191	0.02%	3,553	0.46%	79,565	10.26%	30,870	3.98%	490,233	63.20%

DISTRICT	POPTOT	PercentTot	POPWH_C	PPopWH_C	POPBL_C	PPopBL_C	POPNA_C	PPopNA_C	POPAS_C	PPopAS_C	POPPI_C 💆	PPopPI_C	POPOT_C	PPopOT_C	PopNonW	PPopNonW
1	775,375	105.46%	738,470	95.24%	12,086	1.56%	40,338	5.20%	7,680	0.99%	1,098	0.14%	18,045	2.33%	36,905	4.76%
2	774,997	105.75%	735,710	94.93%	22,794	2.94%	22,360	2.89%	7,723	1.00%	807	0.10%	30,165	3.89%	39,287	5.07%
3	775,414	107.90%	614,760	79.28%	105,280	13.58%	17,973	2.32%	29,900	3.86%	1,063	0.14%	67,667	8.73%	160,654	20.72%
4	774,600	107.91%	652,473	84.23%	82,080	10.60%	19,716	2.55%	25,242	3.26%	967 🔽	0.12%	55,375	7.15%	122,127	15.77%
5	774,544	106.72%	715,150	92.33%	44,448	5.74%	20,861	2.69%	10,674	1.38%	708 <	0.09%	34,745	4.49%	59,394	7.67%
6	775,273	107.64%	598,756	77.23%	91,635	11.82%	14,831	1.91%	92,062	11.87%	1,018	0.13%	36,181	4.67%	176,517	22.77%
7	775,238	107.25%	683,555	88.17%	61,098	7.88%	18,187	2.35%	31,172	4.02%	1,026	0.13%	36,406	4.70%	91,683	11.83%
8	775,229	106.80%	630,826	81.37%	132,430	17.08%	18,983	2.45%	12,571	1.62%	796	0.10%	32,317	4.17%	144,403	18.63%
9	774,962	105.99%	734,261	94.75%	25,456	3.28%	17,123	2.21%	15,113	1.95%	576	0.07%	28,823	3.72%	40,701	5.25%
10	775,218	105.99%	611,513	78.88%	116,066	14.97%	13,855	1.79%	54,707	7.06%	765	0.10%	24,778	3.20%	163,705	21.12%
11	775,568	106.64%	584,731	75.39%	113,756	14.67%	12,795	1.65%	76,277	9.83%	688	0.09%	38,839	5.01%	190,837	24.61%
12	775,247	105.56%	396,294	51.12%	363,437	46.88%	12,651	1.63%	20,578	2.65%	730	0.09%	24,639	3.18%	378,953	48.88%
13	775,666	107.38%	348,076	44.87%	373,556	48.16%	16,785	2.16%	28,229	3.64%	1,013	0.13%	65,288	8.42%	427,590	55.13%

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DISTRICT	POPTOT	PercentTot	POPNHWH_C	PPopNHWH_	POPNHBL_C	PPopNHBL_	C POPNHNA_C	PPopNHNA_	C POPNHAS_C	PPopNHAS_C	POPNHPI_C	PPopNHPI_C		PPopNHOT_C	POPHISP	PPopHisp	PopNonW	PPopNonW
1	775,375	104.56%	726,790	93.73%	11,385	1.47%	38,650	4.98%	7,251	0.94%	879	0.11%	9,957	1.28%	15,847	2.04%	48,585	6.27%
2	774,997	104.15%	710,889	91.73%	21,627	2.79%	19,937	2.57%	7,352	0.95%	659	0.09%	10,625	1.37%	36,060	4.65%	64,108	8.27%
3	775,414	104.68%	576,312	74.32%	99,651	12.85%	13,231	1.71%	29,184	3.76%	860	0.11%	9,675	1.25%	82,760	10.67%	199,102	25.68%
4	774,600	105.03%	616,927	79.64%	78,612	10.15%	15,835	2.04%	24,419	3.15%	830	0.11%	10,612	1.37%	66,314	8.56%	157,673	20.36%
5	774,544	104.84%	689,585	89.03%	42,311	5.46%	18,454	2.38%	10,263	1.33%	575	0.07%	10,729	1.39%	40,121	5.18%	84,959	10.97%
6	775,273	105.23%	571,986	73.78%	88,832	11.46%	12,453	1.61%	91,326	11.78%	883	0.11%	11,88	1.53%	38,423	4.96%	203,287	26.22%
7	775,238	104.87%	654,079	84.37%	57,424	7.41%	15,342	1.98%	30,495	3.93%	888	0.11%	10,823	1.40%	43,903	5.66%	121,159	15.63%
8	775,229	104.81%	602,814	77.76%	128,586	16.59%	16,472	2.12%	12,165	1.57%	714	0.09%	10,274	1.33%	41,495	5.35%	172,415	22.24%
9	774,962	104.26%	712,578	91.95%	24,057	3.10%	15,317	1.98%	14,666	1.89%	500	0.06%	10,972	1.42%	29,890	3.86%	62,384	8.05%
10	775,218	104.51%	595,322	76.79%	114,139	14.72%	12,293	1.59%	54,204	6.99%	664	0.09%	10,081	1.30%	23,457	3.03%	179,896	23.21%
11	775,568	104.36%	559,725	72.17%	110,723	14.28%	10,538	1.36%	75,608	9.75%	616	0.08%	10,822	1.40%	41,334	5.33%	215,843	27.83%
12	775,247	104.15%	381,685	49.23%	359,519	46.37%	10,882	1.40%	20,111	2.59%	622	0.08%	9,379	1.21%	25,253	3.26%	393,562	50.77%
13	775,666	104.34%	311,918	40.21%	368,016	47.45%	12,412	1.60%	27,687	3.57%	821	0.11%	8,894	1.15%	79,565	10.26%	463,748	59.79%

	DODTOT	-					DODULA N						DODOT W		<b>D N N</b>	
DISTRICT	POPTOT	PercentTot	POPWH_A	PPopWH_A	POPBL_W	PPopBL_W	POPNA_W	PPopNA_W	POPAS_W	PPopAS_W	POPPI_W	PopPI_W	POPOT_W	PPopOT_W	PopNonW	PPopNonW
1	775,375	95.11%	699,352	90.20%	7,830	1.01%	19,635	2.53%	4,750	0.61%	496	0.06%	5,381	0.69%	76,023	9.80%
2	774,997	94.78%	694,248	89.58%	16,368	2.11%	7,019	0.91%	4,637	0.60%	390	0.05%	11,906	1.54%	80,749	10.42%
3	775,414	93.59%	561,063	72.36%	91,141	11.75%	6,538	0.84%	24,106	3.11%	500	0.06%	42,354	5.46%	214,351	27.64%
4	774,600	93.24%	597,296	77.11%	67,952	8.77%	6,038	0.78%	19,876	2.57%	414	0.05%	30,640	3.96%	177,304	22.89%
5	774,544	94.00%	667,117	86.13%	33,487	4.32%	4,472	0.58%	7,067	0.91%	335	0.04%	15,564	2.01%	107,427	13.87%
6	775,273	93.65%	546,417	70.48%	80,325	10.36%	3,526	0.45%	81,639	10.53%	560	0.07%	13,613	1.76%	228,856	29.52%
7	775,238	93.74%	632,720	81.62%	48,862	6.30%	4,127	0.53%	25,510	3.29%	512	0.07%	15,000	1.93%	142,518	18.38%
8	775,229	94.20%	583,351	75.25%	119,318	15.39%	4,551	0.59%	9,115	1.18%	416	0.05%	13,516	1.74%	191,878	24.75%
9	774,962	94.57%	691,045	89.17%	18,707	2.41%	2,946	0.38%	10,610	1.37%	267	0.03%	9,342	1.21%	83,917	10.83%
10	775,218	94.99%	570,035	73.53%	105,739	13.64%	3,135	0.40%	48,150	6.21%	356	0.05%	8,933	1.15%	205,183	26.47%
11	775,568	94.53%	539,241	69.53%	104,198	13.44%	3,387	0.44%	68,310	8.81%	389	0.05%	17,644	2.27%	236,327	30.47%
12	775,247	96.27%	362,007	46.70%	351,537	45.35%	5,035	0.65%	15,097	1.95%	375	0.05%	12,317	1.59%	413,240	53.30%
13	775,666	94.75%	301,082	38.82%	359,907	46.40%	7,356	0.95%	23,617	3.04%	523	0.07%	42,431	5.47%	474,584	61.18%

DISTRICT	POPTOT	PercentTot	POPNHWH A				W POPNHNA W				POPNHPI W	PPopNHPI W		PPopNHOT		PPopHisp	PopNonW	PPopNonW
DISTRICT																		
1	775,375	95.82%	693,536	89.45%	7,525	0.97%	18,807	2.43%	4,569	0.59%	395	0.05%	2,261	0.29%	15,847	2.04%	81,839	10.55%
2	774,997	96.17%	680,601	87.82%	15,733	2.03%	5,894	0.76%	4,506	0.58%	310	0.04%	2,229	0.29%	36,060	4.65%	94,396	12.18%
3	775,414	96.07%	543,947	70.15%	87,385	11.27%	3,520	0.45%	23,719	3.06%	354	0.05%	3,292	0.42%	82,760	10.67%	231,467	29.85%
4	774,600	95.65%	581,638	75.09%	65,810	8.50%	3,701	0.48%	19,444	2.51%	332	0.04%	3,698	0.48%	66,314	8.56%	192,962	24.91%
5	774,544	95.60%	654,497	84.50%	32,326	4.17%	3,399	0.44%	6,920	0.89%	293	0.04%	2,872	0.37%	40,121	5.18%	120,047	15.50%
6	775,273	95.67%	536,084	69.15%	78,620	10.14%	2,496	0.32%	81,301	10.49%	486	0.06%	4,278	0.55%	38,423	4.96%	239,189	30.85%
7	775,238	95.71%	619,440	79.90%	46,739	6.03%	2,909	0.38%	25,208	3.25%	437	0.06%	3,348	0.43%	43,903	5.66%	155,798	20.10%
8	775,229	95.87%	569,036	73.40%	116,721	15.06%	3,433	0.44%	8,957	1.16%	377	0.05%	3,165	0.41%	41,495	5.35%	206,193	26.60%
9	774,962	96.09%	681,480	87.94%	17,993	2.32%	2,228	0.29%	10,444	1.35%	226	0.03%	2,365	0.31%	29,890	3.86%	93,482	12.06%
10	775,218	96.22%	563,998	72.75%	104,512	13.48%	2,497	0.32%	47,907	6.18%	292	0.04%	3,255	0.42%	23,457	3.03%	211,220	27.25%
11	775,568	96.40%	529,713	68.30%	102,145	13.17%	2,323	0.30%	68,037	8.77%	327	0.04%	3,800	0.49%	41,334	5.33%	245,855	31.70%
12	775,247	97.28%	356,248	45.95%	348,475	44.95%	4,194	0.54%	14,896	1.92%	307	0.04%	4,806	0.62%	25,253	3.26%	418,999	54.05%
13	775,666	97.17%	285,433	36.80%	355,659	45.85%	4,606	0.59%	23,333	3.01%	393	0.05%	4,702	0.61%	79,565	10.26%	490,233	63.20%

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DISTRICT	VAPTOT	PercentTot	VAPWH_A	PVAPWH_A	VAPBL_A	PVAPBL_A	VAPNA_A	PVAPNA_A	VAPAS_A	PVAPAS_A	VAPPI_A	PVAPPI_A		PVAPOT_A	VAPXX	PVAPXX	PopNonW	PPopNonW
1	633,080	100.00%	578,842	91.43%	6,383	1.01%	13,817	2.18%	3,552	0.56%	197	0.03%	3,73	0.59%	26,559	4.20%	54,238	8.57%
2	606,868	100.00%	549,679	90.58%	13,714	2.26%	4,948	0.82%	3,467	0.57%	134	0.02%	8,072	1.33%	26,854	4.43%	57,189	9.42%
3	597,448	100.00%	452,443	75.73%	62,355	10.44%	3,802	0.64%	17,773	2.97%	181	0.03%	26,728	4.47%	34,166	5.72%	145,005	24.27%
4	593,972	100.00%	474,949	79.96%	46,512	7.83%	3,435	0.58%	14,769	2.49%	186	0.03%	19,944	3.36%	34,177	5.75%	119,023	20.04%
5	606,306	100.00%	532,518	87.83%	24,849	4.10%	2,918	0.48%	5,396	0.89%	164	0.03%	10,120	1.67%	30,341	5.00%	73,788	12.17%
6	619,426	100.00%	450,197	72.68%	59,814	9.66%	1,861	0.30%	62,854	10.15%	247	0.04%	8,986	1.45%	35,467	5.73%	169,229	27.32%
7	611,160	100.00%	509,751	83.41%	35,332	5.78%	2,658	0.43%	19,848	3.25%	249	0.04%	10,454	1.71%	32,868	5.38%	101,409	16.59%
8	606,390	100.00%	471,059	77.68%	85,247	14.06%	2,615	0.43%	6,998	1.15%	191	0.03%	9,292	1.53%	30,988	5.11%	135,331	22.32%
9	606,770	100.00%	549,281	90.53%	13,514	2.23%	2,003	0.33%	7,847	1.29%	132	0.02%	6,282	1.04%	27,711	4.57%	57,489	9.47%
10	620,272	100.00%	473,713	76.37%	75,465	12.17%	1,617	0.26%	35,995	5.80%	137	0.02%	5,676	0.92%	27,669	4.46%	146,559	23.63%
11	624,065	100.00%	448,524	71.87%	78,754	12.62%	1,664	0.27%	52,484	8.41%	159	0.03%	11,416	1.83%	31,064	4.98%	175,541	28.13%
12	596,111	100.00%	286,719	48.10%	262,456	44.03%	1,778	0.30%	11,823	1.98%	119	0.02%	7,426	1.25%	25,790	4.33%	309,392	51.90%
13	592,734	100.00%	244,251	41.21%	266,749	45.00%	3,171	0.53%	17,279	2.92%	209	0.04%	26,425	4.46%	34,650	5.85%	348,483	58.79%

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DISTRICT	v	APTOT	PercentTot	VAPNHWH_A	PVAPNHWH_/	VAPNHBL_A	PVAPNHBL_A	VAPNHNA_A	PVAPNHNA_A	VAPNHAS_A	PVAPNHAS_	<mark>A</mark> VAPNHPI_A	PVAPNHPI_A	VAPNHOT_A	PVAPNHOT A	VAPHISP	PVAPHisp	VAPNHXX	PVAPNHXX	PopNonW	PPopNonW
1		633,080	100.00%	575,217	90.86%	6,283	0.99%	13,436	2.12%	3,495	0.55%	161	0.03%	1,562	0.25%	10,255	1.62%	22,671	3.58%	57,863	9.14%
2		606,868	100.00%	541,129	89.17%	13,408	2.21%	4,336	0.71%	3,426	0.56%	116	0.02%	1,385	0.23%	23,154	3.82%	19,914	3.28%	65,739	10.83%
3		597,448	100.00%	442,096	74.00%	61,225	10.25%	2,131	0.36%	17,649	2.95%	143	0.02%	1,833	0.31%	52,640	8.81%	19,731	3.30%	155,352	26.00%
4		593,972	100.00%	465,772	78.42%	45,776	7.71%	2,198	0.37%	14,628	2.46%	157	0.03%	2,125	0.36%	41,861	7.05%	21,455	3.61%	128,200	21.58%
5		606,306	100.00%	525,147	86.61%	24,483	4.04%	2,281	0.38%	5,337	0.88%	155	0.03%	1,648	0.27%	25,025	4.13%	22,230	3.67%	81,159	13.39%
6		619,426	100.00%	442,928	71.51%	59,054	9.53%	1,270	0.21%	62,686	10.12%	225	0.04%	2,565	0.41%	26,864	4.34%	23,834	3.85%	176,498	28.49%
7		611,160	100.00%	501,351	82.03%	34,626	5.67%	1,907	0.31%	19,729	3.23%	231	0.04%	2,030	0.33%	29,147	4.77%	22,139	3.62%	109,809	17.97%
8		606,390	100.00%	462,261	76.23%	84,346	13.91%	1,959	0.32%	6,919	1.14%	180	0.03%	1,843	0.30%	26,926	4.44%	21,956	3.62%	144,129	23.77%
9		606,770	100.00%	543,625	89.59%	13,235	2.18%	1,587	0.26%	7,766	1.28%	121	0.02%	1,452	0.24%	19,068	3.14%	19,916	3.28%	63,145	10.41%
10		620,272	100.00%	469,713	75.73%	74,975	12.09%	1,267	0.20%	35,876	5.78%	101	0.02%	1,879	0.30%	15,848	2.56%	20,613	3.32%	150,559	24.27%
11		624,065	100.00%	442,233	70.86%	78,008	12.50%	1,090	0.17%	52,364	8.39%	147	0.02%	2,324	0.37%	27,866	4.47%	20,033	3.21%	181,832	29.14%
12		596,111	100.00%	282,914	47.46%	261,148	43.81%	1,357	0.23%	11,740	1.97%	95	0.02%	2,602	0.44%	17,013	2.85%	19,242	3.23%	313,197	52.54%
13		592,734	100.00%	234,410	39.55%	264,949	44.70%	1,631	0.28%	17,141	2.89%	153	0.03%	2,476	0.42%	51,978	8.77%	19,996	3.37%	358,324	60.45%

# 8/2022

DISTRICT	VAPTOT	PercentTot	VAPWH_C	PVAPWH_C	VAPBL_C	PVAPBL_C	VAPNA_C	PVAPNA_C	VAPAS_C	PVAPAS_C	VAPPI_C	PVAPPI_C	VAPOT_C	PVAPOT_C	PopNonW	PPopNonW
1	633,080	104.38%	604,794	95.53%	8,525	1.35%	28,298	4.47%	5,386	0.85%	678	0.11%	13,146	2.08%	28,286	4.47%
2	606,868	104.64%	575,941	94.90%	16,673	2.75%	15,972	2.63%	5,161	0.85%	480	0.08%	20,773	3.42%	30,927	5.10%
3	597,448	106.03%	484,178	81.04%	70,012	11.72%	12,616	2.11%	20,945	3.51%	678	0.11%	45,038	7.54%	113,270	18.96%
4	593,972	106.06%	507,369	85.42%	53,347	8.98%	13,886	2.34%	17,493	2.95%	642	0.11% 📐	37,216	6.27%	86,603	14.58%
5	606,306	105.23%	561,885	92.67%	29,565	4.88%	15,067	2.49%	7,358	1.21%	474	0.08% 🗸	23,679	3.91%	44,421	7.33%
6	619,426	106.11%	483,535	78.06%	67,116	10.84%	11,145	1.80%	68,823	11.11%	730	0.12%	25,920	4.18%	135,891	21.94%
7	611,160	105.66%	541,150	88.54%	41,539	6.80%	13,356	2.19%	23,008	3.76%	722	0.12% 🧡	25,977	4.25%	70,010	11.46%
8	606,390	105.36%	500,414	82.52%	91,882	15.15%	14,019	2.31%	9,005	1.49%	494	0.08% 🍋	23,054	3.80%	105,976	17.48%
9	606,770	104.75%	576,308	94.98%	16,550	2.73%	12,316	2.03%	10,076	1.66%	367	0.06%	19,979	3.29%	30,462	5.02%
10	620,272	104.68%	499,665	80.56%	81,191	13.09%	10,323	1.66%	40,047	6.46%	529	0.09%	17,519	2.82%	120,607	19.44%
11	624,065	105.25%	477,525	76.52%	84,964	13.61%	9,546	1.53%	56,976	9.13%	508	0.08%	27,313	4.38%	146,540	23.48%
12	596,111	104.70%	308,684	51.78%	272,419	45.70%	9,492	1.59%	15,570	2.61%	504	0.08%	17,485	2.93%	287,427	48.22%
13	592,734	106.29%	274,598	46.33%	277,723	46.85%	12,435	2.10%	20,592	3.47%	697	0.12%	43,948	7.41%	318,136	53.67%

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DISTRICT	VAPTOT	PercentTot	VAPNHWH_C	PVAPNHWH_0	VAPNHBL_C	PVAPNHBL_C	VAPNHNA_C	PVAPNHNA_C	VAPNHAS_C	PVAPNHAS_C	VAPNHPI_C	PVAPNHPI_C		PVAPNHOT_C	VAPHISP	PVAPHisp	PopNonW	PPopNonW
1	633,080	103.71%	597,460	94.37%	8,188	1.29%	27,402	4.33%	5,147	0.81%	554	0.09%	7,540	1.19%	10,255	1.62%	35,620	5.63%
2	606,868	103.40%	560,657	92.39%	16,019	2.64%	14,526	2.39%	4,965	0.82%	418	0.07%	7,790	1.28%	23,154	3.82%	46,211	7.61%
3	597,448	103.48%	460,624	77.10%	67,474	11.29%	9,627	1.61%	20,587	3.45%	548	0.09%	6,719	1.12%	52,640	8.81%	136,824	22.90%
4	593,972	103.81%	486,153	81.85%	51,872	8.73%	11,455	1.93%	17,177	2.89%	555	0.09%	7.556	1.27%	41,861	7.05%	107,819	18.15%
5	606,306	103.80%	546,746	90.18%	28,743	4.74%	13,526	2.23%	7,143	1.18%	389	0.06%	7.778	1.28%	25,025	4.13%	59,560	9.82%
6	619,426	104.09%	465,182	75.10%	65,460	10.57%	9,502	1.53%	68,428	11.05%	645	0.10%	8.688	1.40%	26,864	4.34%	154,244	24.90%
7	611,160	103.79%	522,573	85.51%	40,001	6.55%	11,539	1.89%	22,666	3.71%	630	0.10%	7,742	1.27%	29,147	4.77%	88,587	14.49%
8	606,390	103.79%	482,975	79.65%	90,352	14.90%	12,395	2.04%	8,805	1.45%	446	0.07%	7,452	1.23%	26,926	4.44%	123,415	20.35%
9	606,770	103.39%	563,098	92.80%	15,906	2.62%	11,186	1.84%	9,858	1.62%	322	0.05%	7,890	1.30%	19,068	3.14%	43,672	7.20%
10	620,272	103.47%	488,963	78.83%	80,213	12.93%	9,305	1.50%	39,781	6.41%	450	0.07%	7,239	1.17%	15,848	2.56%	131,309	21.17%
11	624,065	103.37%	460,797	73.84%	83,479	13.38%	8,023	1.29%	56,650	9.08%	461	0.07%	7,817	1.25%	27,866	4.47%	163,268	26.16%
12	596,111	103.51%	298,990	50.16%	270,216	45.33%	8,313	1.39%	15,340	2.57%	430	0.07%	6,713	1.13%	17,013	2.85%	297,121	49.84%
13	592,734	103.68%	251,195	42.38%	274,669	46.34%	9,528	1.61%	20,249	3.42%	570	0.10%	6,354	1.07%	51,978	8.77%	341,539	57.62%

DISTRICT	VAPTO	)T Pe	ercentTot	VAPWH_A	PVAPWH_A	VAPBL_W	PVAPBL_W	VAPNA_W	PVAPNA_W	VAPAS_W	PVAPAS_W	VAPPI_W	FVAPPI_W	VAPOT_W	<b>PVAPOT_W</b>	PopNonW	PPopNonW
1	633	,080	96.01%	578,842	91.43%	6,711	1.06%	14,122	2.23%	3,816	0.60%	363	0.06%	3,980	0.63%	54,238	8.57%
2	606	,868	95.78%	549,679	90.58%	14,037	2.31%	5,267	0.87%	3,681	0.61%	257	0.04%	8,353	1.38%	57,189	9.42%
3	597	,448	95.11%	452,443	75.73%	64,188	10.74%	4,799	0.80%	18,192	3.04%	366	0.06%	28,223	4.72%	145,005	24.27%
4	593	,972	94.85%	474,949	79.96%	47,748	8.04%	4,419	0.74%	15,099	2.54%	308	0.05%	20,850	3.51%	119,023	20.04%
5	606	,306	95.33%	532,518	87.83%	25,581	4.22%	3,385	0.56%	5,601	0.92%	247	0.04%	10,635	1.75%	73,788	12.17%
6	619	,426	94.98%	450,197	72.68%	61,488	9.93%	2,780	0.45%	63,448	10.24%	454	0.07%	9,937	1.60%	169,229	27.32%
7	611	,160	95.11%	509,751	83.41%	36,459	5.97%	3,283	0.54%	20,179	3.30%	406	0.07%	11,216	1.84%	101,409	16.59%
8	606	,390	95.43%	471,059	77.68%	86,621	14.28%	3,537	0.58%	7,243	1.19%	278	0.05%	9,951	1.64%	135,331	22.32%
9	606	6,770	95.66%	549,281	90.53%	14,011	2.31%	2,296	0.38%	8,034	1.32%	182	0.03%	6,658	1.10%	57,489	9.47%
10	620	,272	96.10%	473,713	76.37%	76,816	12.38%	2,434	0.39%	36,493	5.88%	276	0.04%	6,342	1.02%	146,559	23.63%
11	624	,065	95.69%	448,524	71.87%	80,366	12.88%	2,605	0.42%	53,060	8.50%	315	0.05%	12,327	1.98%	175,541	28.13%
12	596	5,111	96.98%	286,719	48.10%	265,983	44.62%	3,916	0.66%	12,429	2.09%	282	0.05%	8,761	1.47%	309,392	51.90%
13	592	,734	95.63%	244,251	41.21%	270,424	45.62%	5,580	0.94%	17,943	3.03%	373	0.06%	28,235	4.76%	348,483	58.79%

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DISTRICT	VAPTOT	PercentTot	VAPNHWH_A	PVAPNHWH_	<mark>/</mark> VAPNHBL_W	PVAPNHBL_W	VAPNHNA_W	<mark>/</mark> PVAPNHNA_V	VAPNHAS_W	PVAPNHAS_V	VAPNHPI_W	PVAPNHPI_W	VAPNHOTW	PVAPNHOT_\	<mark>N</mark> VAPHISP	PVAPHisp	PopNonW	PPopNonW
1	633,080	96.56%	575,217	90.86%	6,519	1.03%	13,647	2.16%	3,690	0.58%	298	0.05%	1,695	0.27%	10,255	1.62%	57,863	9.14%
2	606,868	96.85%	541,129	89.17%	13,634	2.25%	4,530	0.75%	3,600	0.59%	216	0.04%	1,501	0.25%	23,154	3.82%	65,739	10.83%
3	597,448	97.10%	442,096	74.00%	62,271	10.42%	2,760	0.46%	17,949	3.00%	259	0.04%	2,171	0.36%	52,640	8.81%	155,352	26.00%
4	593,972	96.76%	465,772	78.42%	46,697	7.86%	2,804	0.47%	14,900	2.51%	252	0.04%	2,423	0.41%	41,861	7.05%	128,200	21.58%
5	606,306	96.55%	525,147	86.61%	25,024	4.13%	2,593	0.43%	5,496	0.91%	221	0.04%	1,860	0.31%	25,025	4.13%	81,159	13.39%
6	619,426	96.67%	442,928	71.51%	60,357	9.74%	2,007	0.32%	63,204	10.20%	393	0.06%	3,049	0.49%	26,864	4.34%	176,498	28.49%
7	611,160	96.68%	501,351	82.03%	35,390	5.79%	2,365	0.39%	19,986	3.27%	349	0.06%	2,311	0.38%	29,147	4.77%	109,809	17.97%
8	606,390	96.79%	462,261	76.23%	85,469	14.09%	2,719	0.45%	7,135	1.18%	252	0.04%	2,166	0.36%	26,926	4.44%	144,129	23.77%
9	606,770	96.87%	543,625	89.59%	13,598	2.24%	1,777	0.29%	7,930	1.31%	158	0.03%	1,613	0.27%	19,068	3.14%	63,145	10.41%
10	620,272	97.12%	469,713	75.73%	76,100	12.27%	1,960	0.32%	36,335	5.86%	223	0.04%	2,232	0.36%	15,848	2.56%	150,559	24.27%
11	624,065	97.27%	442,233	70.86%	79,258	12.70%	1,810	0.29%	52,882	8.47%	272	0.04%	2,698	0.43%	27,866	4.47%	181,832	29.14%
12	596,111	97.85%	282,914	47.46%	264,157	44.31%	3,297	0.55%	12,303	2.06%	231	0.04%	3,373	0.57%	17,013	2.85%	313,197	52.54%
13	592,734	97.72%	234,410	39.55%	267,925	45.20%	3,625	0.61%	17,721	2.99%	282	0.05%	3,302	0.56%	51,978	8.77%	358,324	60.45%

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		Performanc	e Index				President (	2020 & 2012)							Senate (	2020 & 2018)			S		Governor (	2018)		S	ecretary of S	tate (2014)	)
DIS	TRICT	Dem	Rep	Biden (m) Bi	iden (m) % 1	Frump T	'rump %	Obama (m)	Obama (m) % <mark>F</mark>	Romney F	Romney %	Peters20	Peters20 %	James20 (m) Jar	nes20 (m) %	Stabenow18	Stabenow18 % J	James18 (m) Jar	nes18 (m) \infty 🕅	hitmer (m) \	Vhitmer (m) % So	chuette S	Schuette %	Dillard (m) D	)illard (m) % <mark>J</mark>	Johnson J	Johnson %
	1	42.12%	57.88%	182,251	39.94%	274,090	60.06%	175,550	45.48%	210,473	54.52%	182,173	40.21%	270,901	59.79%	156,057	43.48%	202,849	56.5 <mark>2%</mark>	157,796	44.34%	198,119	55.66%	101,229	39.36%	155,940	60.64%
	2	38.86%	61.14%	144,594	35.63%	261,194	64.37%	148,011	44.90%	181,610	55.10%	142,039	35.49%	258,162	64.51%	121,731	40.27%	180,560	59.7 <mark>8%)</mark>	125,278	41.77%	174,644	58.23%	76,400	35.92%	136,287	64.08%
	3	50.49%	49.51%	221,936	54.34%	186,482	45.66%	163,979	48.78%	172,159	51.22%	207,696	51.18%	198,131	48.82%	162,970	51.74%	152,012	48.26%	168,344	53.73%	144,980	46.27%	77,091	37.42%	128,922	62.58%
	4	46.03%	53.97%	195,294	48.00%	211,576	52.00%	162,419	46.95%	183,510	53.05%	182,885	45.38%	220,164	54.62%	148,373	47.21%	165,925	52.79%	152,666	48.96%	159,163	51.04%	78,109	36.13%	138,103	63.87%
	5	40.21%	59.79%	150,022	37.63%	248,672	62.37%	154,802	45.73%	183,731	54.27%	146,704	37.59%	243,600	62.41%	120,019	41.13%	171,809	58.8770	123,316	42.64%	165,914	57.36%	74,765	36.35%	130,896	63.65%
	6	61.02%	38.98%	285,186	63.52%	163,819	36.48%	218,895	59.82%	147,017	40.18%	274,083	61.77%	169,660	38.23%	223,185	63.30%	129,420	36.70%	226,975	64.78%	123,426	35.22%	115,722	48.01%	125,317	51.99%
	7	50.31%	49.69%	222,028	50.49%	217,729	49.51%	187,718	51.27%	178,408	48.73%	217,537	49.94%	218,086	50.06%	180,159	52.11%	165,595	47.85%	187,063	54.51%	156,126	45.49%	101,235	40.87%	146,471	59.13%
	8	54.03%	45.97%	215,759	51.06%	206,833	48.94%	227,145	58.53%	160,906	41.47%	217,444	52.12%	199,755	47.88%	174,218	53.98%	148,521	46.02%	180,496	56.24%	140,428	43.76%	129,571	52.48%	117,319	47.52%
	9	37.67%	62.33%	159,865	35.02%	296,609	64.98%	156,088	42.61%	210,227	57.39%	160,165	35.74%	287,973	64.26%	134,332	39.69%	204,144	60.31%	137,161	40.98%	197,524	59.02%	75,605	31.34%	165,648	68.66%
	10	50.80%	49.20%	209,935	49.50%	214,180	50.50%	190,940	53.28%	167,430	46.72%	208,932	50.35%	206,060	49.65%	168,120	53.57%	145,702	46.43%	169,410	54.40%	142,025	45.60%	91,736	41.17%	131,078	58.83%
	11	57.38%	42.62%	274,032	60.05%	182,288	39.95%	220,954	56.35%	171,122	43.65%	264,411	58.53%	187,350	41.47%	213,846	59.97%	142,726	40.03%	218,546	61.62%	136,099	38.38%	108,624	42.60%	146,333	57.40%
	12	74.61%	25.39%	275,434	74.96%	92,021	25.04%	279,080	76.93%	83,676	23.07%	270,980	75.61%	87,422	24.39%	200,303	74.17%	69,759	25.83%	203,958	75.71%	65,443	24.29%	149,652	67.78%	71,126	32.22%
	13	76.47%	23.53%	247,724	75.55%	80,183	24.45%	273,182	82.07%	59,693	17.93%	241,421	75.52%	78,277	24.48%	164,136	74.31%	56,734	25.69%	168,126	76.25%	52,370	23.75%	140,601	72.66%	52,899	27.34%

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	Totten		Leonard	Nessel %	Nessel		Snyder	uer %
302			202,218	40.43%			150,058	44.11%
622			190,164	36.53%	103,681	59.15%	131,377	40.85%
10.	29,	50.29%	150,627	49.71%	148,872	60.81%	129,754	39.19%
,222			165,076				137,593	38.70%
\$25			168,778	39.21%	108,968	58.11%	124,566	41.99%
de.		37.72%	126,963	62.28%	209,639	50.22%	125,603	49.77%
			165,516			53.92%	139,069	46.08%
		48.42%	147,801	\$1.58%	157,436	43.98%	112,942	56.02%
u da			202,264				156,961	37.39%
( <b>1</b> )0			144,784	\$1.33%			127,297	45.03%
\$47	121,	40.91%	138,565	\$9.09%	200,161	54.97%	145,234	45.03%
			67,548				71,099	68.99%
100	142,	25.16N	\$3,153	74.94%	158,125	25.81%	53,637	73.19%

 
 Image: solution in the chuette 13 5d 198,119 174,644 144,980 159,163 165,914 125,126 165,914 125,245 156,126 140,428 197,524 142,025 136,099 65,443 52,370

 
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		Total Pop	ulation		Racial De	emographics	s as Percent	of Total Po	pulation	Voting Age	Population		emographics	as Percent	of Voting Pop
DISTRICT	All Persons 7	arget	Dev.	Difference	NH White	NH Black	NH Asian	Hispanic	Minority	VAP	% of Total	NH White	NH Black	NH Asian	Hispanic
1	270,366	265,193	1.95%√	5,173	38.73%	34.78%	0.85%	19.30%	61.27%	201,593	74.6%	42.88%	35.03%	0.93%	16.83%
2	260,296	265,193	-1.85%√	-4,897	61.33%	24.66%	1.60%	8.81%	38.67%	188,578	72.4%	61.85%	24.47%	1.83%	7.88%
3	268,291	265,193	1.17%√	3,098	39.96%	42.25%	10.11%	2.40%	60.04%	212,874	79.3%	41.95%	42.09%	9.46%	2.19%
4	259,877	265,193	-2.00%√	-5,316	74.98%	14.56%	2.25%	6.09%	25.02%	214,717	82.6%	74.71	13.32%	2.14%	4.98%
5	260,723	265,193	-1.69%√	-4,470	62.23%	19.28%	9.16%	3.96%	37.77%	205,113	78.7%	65.09%	18.25%	8.86%	3.42%
6	269,435	265,193	1.60%√	4,242	44.15%	39.61%	5.40%	2.93%	55.85%	205,711	76.3%	48.95%	39.15%	5.55%	2.60%
7	258,715	265,193	-2.44%√	-6,478	39.05%	45.54%	4.57%	7.55%	60.95%	208,010	80.4%	40.54%	44.78%	4.71%	6.20%
8	267,500	265,193	0.87%√	2,307	47.83%	40.57%	1.66%	2.48%	52.17%	206,961	77.4%	52.04%	40.25%	1.85%	2.28%
9	260,091	265,193	-1.92%√	-5,102	71.32%	4.34%	17.23%	3.75%	28.68%	206,406	79.4%	73.16%	4.24%	16.23%	3.18%
10	260,891	265,193	-1.62%√	-4,302	47.66%	44.75%	4.16%	2.22%	52.34%	207,211	79.4%	50.14%	40.43%	3.95%	1.90%
11	267,881	265,193	1.01%√	2,688	66.85%	20.46%	2.30%	2.76%	33.15%	204,523	76.3%	72.05%	19.19%	2.35%	2.38%
12	270,210	265,193	1.89%√	5,017	75.00%	12.13%	1.16%	2.78%	25.00%	207,870	76.9%	81.01%	11.52%	1.29%	2.34%
13	258,822	265,193	-2.40%√	-6,371	73.56%	8.54%	13.82%	3.34%	26.44%	213,186	82.4%	73.47%	8.19%	12.43%	2.77%
14	262,085	265,193	-1.17%√	-3,108	82.27%	6.31%	5.30%	4.33%	17.73%	218,191	83.3%	80.82%	5.96%	5.36%	3.37%
15	260,766	265,193	-1.67%√	-4,427	68.07%	14.59%	8.11%	6.21%	31.93%	221,289	84.9%	68.01%	13.28%	8.09%	5.32%
16	262,182	265,193	-1.14%√	-3,011	89.48%	2.47%	0.56%	5.66%	10.52%	213,755	81.5%	88.39%	2.36%	0.57%	4.46%
17	266,557	265,193	0.51%√	1,364	84.35%	4.39%	0.97%	6.06%	15.65%	209,069	78.4%	85.38%	4.32%	1.02%	4.72%
18	268,135	265,193	1.11%√	2,942	83.41%	4.92%	1.70%	4.49%	16.59%	205,401	76.6%	85.77%	4.66%	1.56%	3.62%
19	262,619	265,193	-0.97%√	-2,574	76.77%	11.36%	2.70%	5.88%	23.23%	211,508	80.5%	77.49%	10.03%	2.71%	4.80%
20	262,284	265,193	-1.10%√	-2,909	75.11%	9.05%	2.03%	8.53%	24.89%	200,292	76.4%	78.64%	8.34%	1.95%	6.73%
21	271,390	265,193	2.34%√	6,197	68.10%	11.61%	2.75%	8.46%	31.90%	205,416	75.7%	73.70%	11.23%	2.77%	7.38%
22	264,573	265,193	-0.23%√	-620	89.50%	0.65%	0.78%	2.86%	10.50%	204,483	77.3%	92.17%	0.65%	0.83%	2.37%
23	263,780	265,193	-0.53%√	-1,413	85.17%	3.66%	2.70%	5.03%	14.83%	211,880	80.3%	85.65%	3.52%	2.62%	4.05%
24	271,211	265,193	2.27%√	6,018	83.91%	1.69%	2.41%	3.77%	16.09%	203,066	74.9%	89.06%	1.70%	2.44%	3.24%
25	264,345	265,193	-0.32%√	-848	89.17%	2.24%	0.45%	3.64%	10.83%	209,073	79.1%	90.82%	2.19%	0.46%	2.94%
26	266,938	265,193	0.66%√	1,745	84.87%	3.15%	0.42%	4.46%	15.13%	206,886	77.5%	88.51%	3.13%	0.44%	3.71%
27	269,043	265,193	1.45%√	3,850	57.85%	27.73%	1.22%	4.07%	42.15%	200,250	74.4%	63.00%	27.27%	1.32%	3.66%
28	265,180	265,193	0.00%√	-13	78.73%	4.65%	5.09%	5.07%	21.27%	210,771	79.5%	81.43%	4.84%	5.29%	4.38%
29	263,566	265,193	-0.61%√	-1,627	55.33%	16.51%	4.61%	18.56%	44.67%	200,247	76.0%	60.57%	15.37%	4.63%	15.50%
30	264,560	265,193	-0.24%√	-633	81.65%	5.68%	2.38%	7.62%	18.35%	212,420	80.3%	82.52%	5.06%	2.30%	6.18%
31	267,918	265,193	1.03%√	2,725	79.46%	1.56%	2.85%	10.84%	20.54%	200,843	75.0%	83.32%	1.41%	2.92%	9.22%
32	270,401	265,193	1.96%√	5,208	75.58%	9.07%	0.52%	6.01%	24.42%	205,945	76.2%	80.98%	8.80%	0.55%	4.92%
33	267,378	265,193	0.82%√	2,185	87.59%	2.51%	0.43%	5.12%	12.41%	207,138	77.5%	88.65%	2.99%	0.43%	4.33%
34	261,805	265,193	-1.28%√	-3,388	90.54%	2.22%	0.72%	3.76%	9.46%	213,991	81.7%	89.33%	2.34%	0.72%	3.01%
35	268,708	265,193	1.33%√	3,515	74.07%	12.21%	1.54%	7.75%	25.93%	211,487	78.7%	76.93%	11.30%	1.55%	6.32%
36	270,486	265,193	2.00%√	5,293	92.65%	0.35%	0.36%	2.03%	7.35%	220,106	81.4%	93.79%	0.30%	0.37%	1.55%
37	261,707	265,193	-1.31%√	-3,486	87.54%	0.73%	0.59%	2.45%	12.46%	213,146	81.4%	89.30%	0.75%	0.57%	1.95%
38	266,616	265,193	0.54%√	1,423	88.14%	1.65%	0.69%	1.74%	11.86%	217,404	81.5%	89.52%	1.90%	0.72%	1.43%
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DISTRICT	POPTOT	PercentTot	POPWH A	PPopWh A	POPBL_A	PPopBL A	POPNA A	PPopNA A	POPAS A	PPopAS_A		PPopPI A		PPopOT A	POPXX	P2plusRace	PopNonW	PPopNonW
1	270,366	98.59%	114,759	42.45%	95,237	35.23%	2,292	0.85%	2,361	0.87%	112	0.04%	27,043 •	10.00%	24,753	9.16%	155,607	57.55%
2	260,296	100.89%	163,735	62.90%	64,946	24.95%	1,054	0.40%	4,192	1.61%	51	0.02%	11,940	4.59%	16,701	6.42%	96,561	37.10%
3	268,291	99.71%	108,945	40.61%	114,096	42.53%	769	0.29%	27,211	10.14%	68	0.03%	2,693	1.00%	13,718	5.11%	159,346	59.39%
4	259,877	103.98%	199,788	76.88%	38,325	14.75%	1,175	0.45%	5,903	2.27%	68	0.03%	4,38	1.69%	20,563	7.91%	60,089	23.12%
5	260,723	100.06%	165,030	63.30%	50,746	19.46%	949	0.36%	23.930	9.18%	43	0.02%	3.214	1.23%	16,979	6.51%	95,693	36.70%
6	269,435	96.53%	120,763	44.82%	107,451	39.88%	734	0.27%	14,600	5.42%	47	0.02%	2,925	1.09%	13,571	5.04%	148,672	55.18%
7	258,715	101.30%	104,761	40.49%	119,010	46.00%	905	0.35%	11,899	4.60%	83	0.03%	9,582	3.70%	15,845	6.12%	153,954	59.51%
8	267,500	96.76%	129,657	48.47%	109,149	40.80%	507	0.19%	4,486	1.68%	74	0.03%	2,262	0.85%	12,687	4,74%	137,843	51.53%
9	260,091	100.80%	187,337	72.03%	11,459	4.41%	596	0.23%	44,870	17.25%	40	0.02%	3,428	1.32%	14,452	5.56%	72,754	27.97%
10	260,891	103.27%	125,826	48.23%	117,496	45.04%	646	0.25%	10,897	4.18%	55	0.02%	2,101	0.81%	12,414	4.76%	135,065	51.77%
11	267,881	97.33%	181,037	67.58%	55,192	20.60%	631	0.24%	6,217	2.32%	66	0.02%	2,333	0.87%	15,247	5.69%	86,844	32.42%
12	270,210	95.75%	204,815	75.80%	33,116	12.26%	707	0.26%	3,184	1.18%	63	0.02%	2,210	0.82%	14,620	5.41%	65,395	24.20%
13	258,822	103.50%	192,263	74.28%	22,274	8.61%	417	0.16%	35,838	13.85%	75	0.03%	2,804	1.08%	14,210	5.49%	66,559	25.72%
14	262,085	104.31%	219,226	83.65%	16,915	6.45%	902	0.34%	13,961	5.33%	62	0.02%	3,401	1.30%	18,925	7.22%	42,859	16.35%
15	260,766	103.73%	181,788	69.71%	38,608	14.81%	966	0.37%	21,228	8.14%	170	0.07%	6,097	2.34%	21,635	8.30%	78,978	30.29%
16	262,182	103.43%	240,309	91.66%	6,762	2.58%	1,117	0.43%	1,509	0.58%	45	0.02%	4,174	1.59%	17,263	6.58%	21,873	8.34%
17	266,557	101.42%	228,662	85.78%	11,949	4.48%	1,686	0.63%	2,623	0.98%	129	0.05%	7,727	2.90%	17,571	6.59%	37,895	14.22%
18	268,135	100.06%	227,428	84.82%	13,410	5.00%	1,529	0.57%	4,597	1.71%	48	0.02%	4,606	1.72%	16,673	6.22%	40,707	15.18%
19	262,619	103.34%	205,399	78.21%	30,497	11.61%	1,318	0.50%	7,143	2.72%	84	0.03%	6,602	2.51%	20,347	7.75%	57,220	21.79%
20	262,284	100.00%	201,975	77.01%	24,140	9.20%	1,926	0.73%	5,353	2.04%	104	0.04%	10,586	4.04%	18,200	6.94%	60,309	22.99%
21	271,390	97.04%	191,558	70.58%	32,646	12.03%	1,425	0.53%	7,558	2.78%	76	0.03%	7,382	2.72%	22,716	8.37%	79,832	29.42%
22	264,573	98.38%	239,227	90.42%	1,763	0.67%	853	0.32%	2,109	0.80%	128	0.05%	1,898	0.72%	14,318	5.41%	25,346	9.58%
23	263,780	101.65%	228,440	86.60%	9,875	3.74%	845	0.32%	7,179	2.72%	62	0.02%	4,104	1.56%	17,630	6.68%	35,340	13.40%
24	271,211	95.98%	230,099	84.84%	4,712	1.74%	605	0.22%	6,578	2.43%	50	0.02%	3,154	1.16%	15,098	5.57%	41,112	15.16%
25	264,345	100.00%	239,323	90.53%	6,133	2.32%	1,043	0.39%	1,208	0.46%	76	0.03%	2,699	1.02%	13,863	5.24%	25,022	9.47%
26	266,938	97.69%	230,863	86.49%	8,631	3.23%	1,112	0.42%	1,151	0.43%	51	0.02%	3,455	1.29%	15,503	5.81%	36,075	13.51%
27	269,043	96.59%	159,403	59.25%	75,345	28.00%	1,130	0.42%	3,320	1.23%	84	0.03%	3,507	1.30%	17,088	6.35%	109,640	40.75%
28	265,180	98.50%	213,118	80.37%	12,620	4.76%	1,057	0.40%	13,565	5.12%	108	0.04%	4,415	1.66%	16,331	6.16%	52,062	19.63%
29	263,566	100.08%	153,791	58.35%	44,998	17.07%	2,323	0.88%	12,245	4.65%	82	0.03%	26,124	9.91%	24,217	9.19%	109,775	41.65%
30	264,560	102.51%	220,974	83.53%	15,537	5.87%	1,288	0.49%	6,366	2.41%	91	0.03%	8,899	3.36%	18,056	6.82%	43,586	16.47%
31	267,918	98.75%	219,847	82.06%	4,600	1.72%	1,312	0.49%	7,827	2.92%	103	0.04%	11,784	4.40%	19,100	7.13%	48,071	17.94%
32	270,401	96.82%	209,763	77.57%	24,855	9.19%	2,532	0.94%	1,451	0.54%	56	0.02%	5,541	2.05%	17,607	6.51%	60,638	22.43%
33	267,378	100.00%	239,582	89.60%	6,904	2.58%	1,170	0.44%	1,188	0.44%	90	0.03%	4,295	1.61%	14,149	5.29%	27,796	10.40%
34	261,805	102.64%	240,986	92.05%	5,968	2.28%	3,390	1.29%	1,902	0.73%	81	0.03%	2,963	1.13%	13,418	5.13%	20,819	7.95%
35	268,708	100.62%	206,032	76.68%	33,884	12.61%	1,177	0.44%	4,205	1.56%	164	0.06%	6,400	2.38%	18,504	6.89%	62,676	23.32%
36	270,486	100.00%	252,817	93.47%	994	0.37%	1,622	0.60%	1,021	0.38%	51	0.02%	1,648	0.61%	12,333	4.56%	17,669	6.53%
37	261,707	100.00%	231,238	88.36%	1,952	0.75%	9,410	3.60%	1,584	0.61%	126	0.05%	2,154	0.82%	15,243	5.82%	30,469	11.64%
38	266,616	100.00%	236,793	88.81%	4,457	1.67%	8,148	3.06%	1,856	0.70%	85	0.03%	1,338	0.50%	13,939	5.23%	29,823	11.19%

DISTRICT	POPTOT	PercentTot	POPNHWH A	PPopNHWh A	POPNHBL A	PPopNHBI A	POPNHNA A	PPopNHNA A	POPNHAS A	PPopNHAS A	POPNHPI A	PPopNHPI A	POPNHOT A	PPopNHOT A	POPHISP	PPopHisp	POPNHXX	PPopNHXX	PopNonW	PPopNonW
1	270.366	100.00%	104.701	38.73%	94.028	34.78%	786	0.29%	2,286	0.85%	78	0.03%	1,224	0.45%	52,183	19.30%	15.080	5.58%	165.665	61.27%
2	260,296	100.00%	159,635	61.33%	64,195	24.66%	481	0.18%	4,157	1.60%	31	0.01%	1,256	0.48%	22,935	8.81%	7,606	2.92%	100,661	38.67%
3	268,291	100.00%	107,222	39.96%	113,363	42.25%	652	0.24%	27,135	10.11%	59	0.02%	1,286	0.48%	6,427	2.40%	12,147	4.53%	161,069	60.04%
4	259,877	100.00%	194,866	74.98%	37,846	14.56%	852	0.33%	5,858	2.25%	50	0.02%	1,080	0.42%	• 15,822	6.09%	3,503	1.35%	65,011	25.02%
5	260,723	100.00%	162,250	62.23%	50,255	19.28%	703	0.27%	23,874	9.16%	34	0.01%	1,085	0.42%	30,328	3.96%	12,194	4.68%	98,473	37.77%
6	269,435	100.00%	118,953	44.15%	106,733	39.61%	588	0.22%	14,553	5.40%	42	0.02%	1,248	0.46%	<b>1</b> ,895	2.93%	19,423	7.21%	150,482	55.85%
7	258,715	100.00%	101,027	39.05%	117,831	45.54%	506	0.20%	11,824	4.57%	81	0.03%	1,433	0.55%	19,544	7.55%	6,469	2.50%	157,688	60.95%
8	267,500	100.00%	127,958	47.83%	108,520	40.57%	384	0.14%	4,438	1.66%	66	0.02%	1,200	0.45%	632	2.48%	18,302	6.84%	139,542	52.17%
9	260,091	100.00%	185,502	71.32%	11,297	4.34%	405	0.16%	44,806	17.23%	33	0.01%	845	0.32%	9,753	3.75%	7,450	2.86%	74,589	28.68%
10	260,891	100.00%	124,350	47.66%	116,745	44.75%	541	0.21%	10,854	4.16%	40	0.02%	1,054	0.40%	5,798	2.22%	1,509	0.58%	136,541	52.34%
11	267,881	100.00%	179,073	66.85%	54,796	20.46%	497	0.19%	6,156	2.30%	50	0.02%	881	0.33%	7,397	2.76%	19,031	7.10%	88,808	33.15%
12	270,210	100.00%	202,670	75.00%	32,771	12.13%	585	0.22%	3,129	1.16%	50	0.02%	880	0.33%	7,502	2.78%	22,623	8.37%	67,540	25.00%
13	258,822	100.00%	190,382	73.56%	22,096	8.54%	293	0.11%	35,775	13.82%	70	0.03%	1,092	0.42%	8,657	3.34%	457	0.18%	68,440	26.44%
14	262,085	100.00%	215,612	82.27%	16,541	6.31%	666	0.25%	13,900	5.30%	62	0.02%	1,079	0.41%	11,345	4.33%	2,880	1.10%	46,473	17.73%
15	260,766	100.00%	177,513	68.07%	38,040	14.59%	583	0.22%	21,155	8.11%	151	0.06%	1,518	0.58%	16,199	6.21%	5,607	2.15%	83,253	31.93%
16	262,182	100.00%	234,605	89.48%	6,481	2.47%	815	0.31%	1,480	0.56%	37	0.01%	838	0.32%	14,842	5.66%	3,084	1.18%	27,577	10.52%
17	266,557	100.00%	224,844	84.35%	11,693	4.39%	1,323	0.50%	2,591	0.97%	119	0.04%	976	0.37%	16,155	6.06%	8,856	3.32%	41,713	15.65%
18	268,135	100.00%	223,661	83.41%	13,186	4.92%	1,225	0.46%	4,562	1.70%	45	0.02%	996	0.37%	12,040	4.49%	12,420	4.63%	44,474	16.59%
19	262,619	100.00%	201,604	76.77%	29,826	11.36%	856	0.33%	7,084	2.70%	61	0.02%	1,400	0.53%	15,431	5.88%	6,357	2.42%	61,015	23.23%
20	262,284	100.00%	196,995	75.11%	23,735	9.05%	1,327	0.51%	5,320	2.03%	86	0.03%	941	0.36%	22,363	8.53%	11,517	4.39%	65,289	24.89%
21	271,390	100.00%	184,818	68.10%	31,496	11.61%	889	0.33%	7,473	2.75%	60	0.02%	1,175	0.43%	22,969	8.46%	22,510	8.29%	86,572	31.90%
22	264,573	100.00%	236,799	89.50%	1,719	0.65%	716	0.27%	2,070	0.78%	127	0.05%	727	0.27%	7,559	2.86%	14,856	5.62%	27,774	10.50%
23	263,780	100.00%	224,651	85.17%	9,647	3.66%	594	0.23%	7,132	2.70%	49	0.02%	905	0.34%	13,274	5.03%	7,528	2.85%	39,129	14.83%
24	271,211	100.00%	227,560	83.91%	4,589	1.69%	427	0.16%	6,541	2.41%	43	0.02%	721	0.27%	10,221	3.77%	21,109	7.78%	43,651	16.09%
25	264,345	100.00%	235,725	89.17%	5,909	2.24%	828	0.31%	1,188	0.45%	72	0.03%	635	0.24%	9,626	3.64%	10,362	3.92%	28,620	10.83%
26	266,938	100.00%	226,563	84.87%	8,402	3.15%	873	0.33%	1,122	0.42%	47	0.02%	633	0.24%	11,907	4.46%	17,391	6.51%	40,375	15.13%
27	269,043	100.00%	155,636	57.85%	74,614	27.73%	882	0.33%	3,287	1.22%	80	0.03%	1,029	0.38%	10,963	4.07%	22,552	8.38%	113,407	42.15%
28	265,180	100.00%	208,774	78.73%	12,332	4.65%	764	0.29%	13,502	5.09%	100	0.04%	1,014	0.38%	13,444	5.07%	15,250	5.75%	56,406	21.27%
29	263,566	100.00%	145,823	55.33%	43,516	16.51%	698	0.26%	12,152	4.61%	65	0.02%	1,069	0.41%	48,920	18.56%	11,323	4.30%	117,743	44.67%
30	264,560	100.00%	216,019	81.65%	15,030	5.68%	828	0.31%	6,294	2.38%	74	0.03%	931	0.35%	20,157	7.62%	5,227	1.98%	48,541	18.35%
31	267,918	100.00%	212,884	79.46%	4,174	1.56%	587	0.22%	7,627	2.85%	91	0.03%	727	0.27%	29,032	10.84%	12,796	4.78%	55,034	20.54%
32	270,401	100.00%	204,357	75.58%	24,527	9.07%	2,071	0.77%	1,416	0.52%	45	0.02%	792	0.29%	16,252	6.01%	20,941	7.74%	66,044	24.42%
33	267,378	100.00%	234,208	87.59%	6,709	2.51%	931	0.35%	1,162	0.43%	66	0.02%	621	0.23%	13,697	5.12%	9,984	3.73%	33,170	12.41%
34	261,805	100.00%	237,040	90.54%	5,811	2.22%	2,971	1.13%	1,876	0.72%	68	0.03%	706	0.27%	9,832	3.76%	3,501	1.34%	24,765	9.46%
35	268,708	100.00%	199,029	74.07%	32,815	12.21%	769	0.29%	4,149	1.54%	157	0.06%	1,113	0.41%	20,834	7.75%	9,842	3.66%	69,679	25.93%
36	270,486	100.00%	250,603	92.65%	958	0.35%	1,487	0.55%	985	0.36%	41	0.02%	661	0.24%	5,493	2.03%	10,258	3.79%	19,883	7.35%
37	261,707	100.00%	229,096	87.54%	1,913	0.73%	9,064	3.46%	1,555	0.59%	104	0.04%	780	0.30%	6,422	2.45%	12,773	4.88%	32,611	12.46%
38	266,616	100.00%	235,001	88.14%	4,390	1.65%	7,966	2.99%	1,834	0.69%	69	0.03%	653	0.24%	4,638	1.74%	12,065	4.53%	31,615	11.86%

## 10 DISTRICT POPTOT POPWH C POPBL C POPNA C POPAS C **PPopAS** C POPPI C PPopPI\_C POPOT C PPopOT C PopNonW PercentTot PPopWH C PPopBL C PPopNA C **PPopNonW** 1 270.366 108.39% 137.243 50.76% 102.235 37.81% 7.770 2.87% 3.837 1.42% 423 0.16% 41.554 15.37% 133.123 49.24% 282 81.134 2 260.296 107.68% 179,162 68.83% 69.055 26.53% 3.716 1.43% 7,515 2.89% 0.11% 20.564 7.90% 31.17% 268.291 105.28% 120,766 45.01% 120,106 44.77% 4.386 1.63% 30.498 11.37% 307 0.11% 6.395 2.38% 147,525 54.99% 3 Δ 259.877 112.36% 219.241 84.36% 43.697 16.81% 7.621 2.93% 7.741 2.98% 327 0.13% 13.375 5.15% 40.636 15.64% 258 80,006 5 260,723 107.03% 180,717 69.31% 56,131 21.53% 5,701 2.19% 26.432 10.14% 0.10% 9,800 3.76% 30.69% 269,435 49.21% 0.08% 136,835 6 102.03% 132,600 113,079 41.97% 4,615 1.71% 16,551 6.14% 206 7,847 2.91% 50.79% 7 258,715 107.97% 118,452 45.78% 125,673 48.58% 4,198 1.62% 14,060 5.43% 259 0.10% 16,693 6.45% 140,263 54.22% 52.64% 113,999 6,954 2.60% 126,696 47.36% 267,500 101.93% 140,804 42.62% 3,602 1.35% 7,029 2.63% 279 0.10% 58,987 9 106.63% 77.32% 13,825 5.32% 1.27% 48,340 18.59% 210 0.08% 10,572 4.06% 22.68% 260,091 201,104 3,293 10 5.825 2.23% 124.125 260.891 108.41% 136,766 52.42% 122.974 47.14% 4.195 1.61% 12.805 4.91% 255 0.10% 47.58% 11 267,881 103.36% 195,311 72.91% 60,222 22.48% 5,073 1.89% 8,176 3.05% 246 0.09% 7,841 2.93% 72,570 27.09% 12 270.210 101.47% 218.637 80.91% 37.207 13.77% 1.92% 5.217 1.93% 232 7.714 2.85% 51.573 19.09% 5.176 0.09% 13 258,822 109.30% 205,733 79.49% 24,832 9.59% 3,051 1.18% 39.293 15.18% 235 0.09% 9,753 3.77% 53,089 20.51% 14 262,085 111.99% 237,390 90.58% 22,148 8.45% 5,933 2.26% 17,144 6.54% 266 0.10% 10,621 4.05% 24,695 9.42% 15 202.023 77.47% 45.384 2.14% 9.94% 491 14.560 5.58% 58.743 22.53% 260.766 112.72% 17.40% 5.569 25.921 0.19% 5,004 16 262,182 110.31% 257,178 98.09% 10,107 3.85% 7,477 2.85% 2,740 1.05% 195 0.07% 11,513 4.39% 1.91% 17 266,557 108.40% 245,640 92.15% 16,374 6.14% 7.407 2.78% 4.047 1.52% 354 0.13% 15,129 5.68% 20,917 7.85% 18 243,555 2.58% 10,848 24,580 9.17% 268,135 106.62% 90.83% 18,217 6.79% 6,909 6,091 2.27% 261 0.10% 4.05% 19 262.619 111.61% 224,597 85.52% 37,874 14.42% 2.64% 9.541 3.63% 13,841 5.27% 38,022 14.48% 6.937 323 0.12% 20 262,284 107.34% 219,387 83.64% 28,269 10.78% 7,128 2.72% 6,932 2.64% 334 0.13% 19,482 7.43% 42,897 16.36% 21 271,390 106.02% 212,854 78.43% 41,206 15.18% 7,218 2.66% 9,337 3.44% 382 0.14% 16,742 6.17% 58,536 21.57% 22 11,271 264,573 104.01% 253,302 95.74% 3,418 1.29% 6,076 2.30% 3,892 1.47% 327 0.12% 8,168 3.09% 4.26% 23 4.84% 3.66% 4.82% 18,238 263,780 108.65% 245,542 93.09% 12,762 5,728 2.17% 9,643 195 0.07% 12,715 6.91% 24 26,439 271,211 101.79% 244,772 90.25% 6,691 2.47% 4.830 1.78% 8.844 3.26% 174 0.06% 10,753 3.96% 9.75% 25 264,345 105.51% 252,882 95.66% 9,163 3.47% 5,947 2.25% 2,243 0.85% 221 0.08% 8,445 3.19% 11,463 4.34% 26 103.74% 245.988 92.15% 11.330 4.24% 6.969 2.61% 2.155 0.81% 211 0.08% 10.263 3.84% 20.950 7.85% 266.938 27 269,043 103.35% 175,192 65.12% 82,484 30.66% 6,643 2.47% 4,668 1.74% 270 0.10% 8,811 3.27% 93,851 34.88% 28 265.180 105.03% 228.870 86.31% 16.597 6.26% 5.437 2.05% 16.041 6.05% 337 0.13% 11.233 4.24% 36.310 13.69% 29 263,566 109.87% 175,750 66.68% 52,712 20.00% 6,459 2.45% 14,616 5.55% 354 0.13% 39,677 15.05% 87,816 33.32% 5,738 30 264,560 109.77% 238,166 90.02% 20,478 7.74% 2.17% 8,856 3.35% 383 0.14% 16,798 6.35% 26,394 9.98% 31 238,222 7,625 2.85% 10,239 3.82% 358 22,928 8.56% 29,696 11.08% 267,918 106.21% 88.92% 5,191 1.94% 0.13% 32 43,665 226,736 83.85% 2,699 0.11% 4.86% 16.15% 270,401 103.70% 29,020 10.73% 8,516 3.15% 1.00% 293 13,150 33 267,378 105.54% 253,457 94.79% 9,108 3.41% 5,941 2.22% 2,393 0.89% 316 0.12% 10,974 4.10% 13,921 5.21% 34 7,794 3.23% 3.46% 2,927 3.12% 2.98% 261,805 108.04% 254,011 97.02% 8,463 9,055 1.12% 242 0.09% 8,164 35 2.23% 5.578 5.55% 44.961 268,708 107.88% 223.747 83.27% 39.341 14.64% 5.981 2.08% 326 0.12% 14.900 16.73% 36 270,486 104.85% 264,822 97.91% 2,697 1.00% 7,302 2.70% 2,066 0.76% 315 0.12% 6,406 2.37% 5,664 2.09% 37 261.707 106.10% 246.129 94.05% 3.606 1.38% 17.606 6.73% 2.783 1.06% 444 0.17% 7.091 2.71% 15.578 5.95% 38 266,616 105.52% 250,370 93.91% 6,120 2.30% 16,131 6.05% 3,083 1.16% 366 0.14% 5,268 1.98% 16,246 6.09%

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DISTRICT	POPTOT	PercentTot		PPonNHWH (		PPonNHBI C		PPonNHNA (	POPNHAS C	PPopNHAS (		PPopNHPL C	POPNHO	PPonNHOT (	POPHISP	PPopHisp	PopNonW	PPopNonW
1	270,366	103.15%	114,614	42.39%	99,870	36.94%	4,961	1.83%	3,608	1.33%	338	0.13%	3,298	1.22%	52,183	19.30%	155,752	57.61%
2	260,296	104.95%	168.772	64.84%	67.640	25.99%	2,635	1.01%	7,367	2.83%	228	0.09%	3,603	1.38%	22,935	8.81%	91,524	35.16%
3	268,291	104.27%	116,990	43.61%	118,816	44.29%	3,902	1.45%	30,298	11.29%	264	0.10%	3,054	1.14%	6,427	2.40%	151,301	56.39%
4	259,877	109.61%	207,891	80.00%	42,591	16.39%	6,675	2.57%	7,545	2.90%	270	0.10%	4,050	1.56%	15,822	6.09%	51,986	20.00%
5	260,723	105.10%	173,622	66.59%	55,067	21.12%	4,969	1.91%	26,249	10.07%	214	0.08%	3,568	1.37%	10,328	3.96%	87,101	33.41%
6	269,435	100.59%	127,675	47.39%	111,800	41.49%	4,001	1.48%	16,366	6.07%	177	0.07%	3,111	1.15%	7,895	2.93%	141,760	52.61%
7	258,715	105.46%	109,287	42.24%	123,616	47.78%	3,249	1.26%	13,842	5.35%	224	0.09%	3,075	1.19%	19,544	7.55%	149,428	57.76%
8	267,500	100.64%	136,256	50.94%	112,947	42.22%	3,072	1.15%	6,830	2.55%	250	0.09%	3,222	1.20%	6,632	2.48%	131,244	49.06%
9	260,091	104.61%	194,545	74.80%	13,366	5.14%	2,681	1.03%	48,125	18.50%	191	0.07%	3,429	1.32%	9,753	3.75%	65,546	25.20%
10	260,891	107.42%	133,152	51.04%	121,808	46.69%	3,788	1.45%	12,674	4.86%	221	0.08%	2,797	1.07%	5,798	2.22%	127,739	48.96%
11	267,881	101.99%	190,188	71.00%	59,388	22.17%	4,535	1.69%	8,026	3.00%	203	0.08%	3,468	1.29%	7,397	2.76%	77,693	29.00%
12	270,210	100.08%	213,166	78.89%	36,519	13.52%	4,727	1.75%	5,023	1.86%	201	0.07%	3,279	1.21%	7,502	2.78%	57,044	21.11%
13	258,822	107.35%	199,353	77.02%	24,299	9.39%	2,565	0.99%	39,075	15.10%	210	0.08%	3,681	1.42%	8,657	3.34%	59,469	22.98%
14	262,085	110.01%	229,244	87.47%	21,297	8.13%	5,125	1.96%	16,929	6.46%	231	0.09%	4,151	1.58%	11,345	4.33%	32,841	12.53%
15	260,766	110.04%	191,786	73.55%	44,026	16.88%	4,507	1.73%	25,640	9.83%	440	0.17%	4,350	1.67%	16,199	6.21%	68,980	26.45%
16	262,182	108.20%	246,449	94.00%	9,365	3.57%	6,603	2.52%	2,604	0.99%	155	0.06%	3,665	1.40%	14,842	5.66%	15,733	6.00%
17	266,557	106.39%	237,126	88.96%	15,614	5.86%	6,545	2.46%	3,887	1.46%	282	0.11%	3,988	1.50%	16,155	6.06%	29,431	11.04%
18 19	268,135	104.97%	235,868	87.97%	17,572	6.55%	6,152	2.29%	5,951	2.22%	226	0.08%	3,661	1.37%	12,040	4.49%	32,267	12.03%
-	262,619	109.44%	215,944	82.23%	36,458	13.88%	5,801	2.21%	9,353	3.56%	279	0.11%	4,157	1.58%	15,431	5.88%	46,675	17.77%
20 21	262,284 271,390	104.63% 102.72%	208,048 198,478	79.32% 73.13%	27,359 38,548	10.43% 14.20%	5,893 5,753	2.25% 2.12%	6,777 9,056	2.58% 3.34%	271 310	0.10%	3,728 3,663	1.42% 1.35%	22,363 22,969	8.53% 8.46%	54,236 72,912	20.68% 26.87%
21	264,573	102.72%	247,204	93.44%	30,540	14.20%	5,753	2.12%	3,732	1.41%	305	0.11%	3,596	1.35%	7,559	2.86%	17,369	6.56%
23	263,780	102.31%	236,158	89.53%	12,153	4.61%	5,016	1.90%	9,448	3.58%	170	0.12%	4,243	1.61%	13,274	5.03%	27,622	10.47%
24	203,700	99.87%	230,130	87.56%	6,311	2.33%	4,235	1.56%	8,680	3.20%	154	0.06%	3,769	1.39%	10,221	3.77%	33,735	12.44%
25	264,345	104.07%	245,891	93.02%	8,569	3.24%	5,307	2.01%	2,131	0.81%	191	0.07%	3,402	1.29%	9,626	3.64%	18,454	6.98%
26	266,938	102.04%	237,577	89.00%	10,752	4.03%	6,234	2.34%	2,038	0.76%	183	0.07%	3,704	1.39%	11,907	4.46%	29,361	11.00%
27	269,043	101.88%	167,970	62.43%	81,187	30.18%	5,904	2.19%	4,554	1.69%	246	0.09%	3,271	1.22%	10,963	4.07%	101,073	37.57%
28	265,180	102.96%	219,711	82.85%	15,739	5.94%	4,552	1.72%	15,809	5.96%	291	0.11%	3,484	1.31%	13,444	5.07%	45,469	17.15%
29	263,566	104.76%	156,413	59.34%	49,387	18.74%	3,732	1.42%	14,305	5.43%	263	0.10%	3,087	1.17%	48,920	18.56%	107,153	40.66%
30	264,560	107.25%	227,447	85.97%	19,180	7.25%	4,599	1.74%	8,602	3.25%	315	0.12%	3,451	1.30%	20,157	7.62%	37,113	14.03%
31	267,918	102.44%	222,119	82.91%	6,540	2.44%	3,675	1.37%	9,733	3.63%	323	0.12%	3,032	1.13%	29,032	10.84%	45,799	17.09%
32	270,401	101.61%	216,284	79.99%	28,178	10.42%	7,358	2.72%	2,542	0.94%	255	0.09%	3,877	1.43%	16,252	6.01%	54,117	20.01%
33	267,378	103.87%	244,034	91.27%	8,660	3.24%	5,237	1.96%	2,268	0.85%	258	0.10%	3,560	1.33%	13,697	5.12%	23,344	8.73%
34	261,805	106.80%	247,167	94.41%	8,059	3.08%	8,151	3.11%	2,809	1.07%	189	0.07%	3,403	1.30%	9,832	3.76%	14,638	5.59%
35	268,708	105.10%	210,112	78.19%	37,357	13.90%	4,863	1.81%	5,390	2.01%	287	0.11%	3,577	1.33%	20,834	7.75%	58,596	21.81%
36	270,486	103.97%	260,654	96.37%	2,470	0.91%	6,797	2.51%	1,890	0.70%	260	0.10%	3,667	1.36%	5,493	2.03%	9,832	3.63%
37	261,707	105.07%	241,604	92.32%	3,424	1.31%	16,879	6.45%	2,673	1.02%	365	0.14%	3,606	1.38%	6,422	2.45%	20,103	7.68%
38	266,616	104.71%	246,823	92.58%	5,819	2.18%	15,620	5.86%	2,940	1.10%	273	0.10%	3,061	1.15%	4,638	1.74%	19,793	7.42%

## 2022 $\mapsto$ PPopPI\_W PPopNA\_W POPAS\_W PPopAS\_W POPPI\_W POPOT\_W PPopOT\_W PopNonW 216 10.46% 155,607 2,673 0.99% 28,272

PPopNonW

DISTRICT	POPIOI	Percentiot	POPWH_A	РРОРШН_А	POPBL_W	PPOPBL_W	POPNA_W	PPOPNA_W	POPAS_W	PPOPAS_W	POPPI_W	Prepri_w	POPOI_W	PPOPUI_W	PopNonw	PPopNonW
1	270,366	91.13%	114,759	42.45%	97,059	35.90%	3,418	1.26%	2,673	0.99%	216	0.08%	28,272	10.46%	155,607	57.55%
2	260,296	95.47%	163,735	62.90%	66,010	25.36%	1,642	0.63%	4,405	1.69%	121	0.05%	12,591	4.84%	96,561	37.10%
3	268,291	96.02%	108,945	40.61%	115,681	43.12%	1,758	0.66%	27,702	10.33%	165	6,06%	3,371	1.26%	159,346	59.39%
4	259,877	96.94%	199,788	76.88%	39,271	15.11%	1,682	0.65%	6,135	2.36%	142	05%	4,901	1.89%	60,089	23.12%
5	260,723	94.57%	165,030	63.30%	51,828	19.88%	1,566	0.60%	24,263	9.31%	133	<b>4</b> .05%	3,746	1.44%	95,693	36.70%
6	269,435	92.80%	120,763	44.82%	109,022	40.46%	1,681	0.62%	14,900	5.53%	100	.04%	3,573	1.33%	148,672	55.18%
7	258,715	96.86%	104,761	40.49%	120,892	46.73%	1,906	0.74%	12,356	4.78%	165	<b>&gt;</b> 06%	10,516	4.06%	153,954	59.51%
8	267,500	93.18%	129,657	48.47%	110,550	41.33%	1,355	0.51%	4,823	1.80%	171	0.06%	2,701	1.01%	137,843	51.53%
9	260,091	95.78%	187,337	72.03%	11,948	4.59%	842	0.32%	45,159	17.36%	92	0.04%	3,743	1.44%	72,754	27.97%
10	260,891	99.66%	125,826	48.23%	118,815	45.54%	1,441	0.55%	11,209	4.30%	118	0.05%	2,595	0.99%	135,065	51.77%
11	267,881	92.37%	181,037	67.58%	56,044	20.92%	1,087	0.41%	6,447	2.41%	120	0.04%	2,710	1.01%	86,844	32.42%
12	270,210	90.94%	204,815	75.80%	33,795	12.51%	1,072	0.40%	3,410	1.26%	118	0.04%	2,507	0.93%	65,395	24.20%
13	258,822	98.60%	192,263	74.28%	22,828	8.82%	723	0.28%	36,131	13.96%	124	0.05%	3,120	1.21%	66,559	25.72%
14	262,085	97.69%	219,226	83.65%	17,498	6.68%	1,246	0.48%	14,159	5.40%	149	0.06%	3,749	1.43%	42,859	16.35%
15	260,766	96.52%	181,788	69.71%	39,777	15.25%	1,509	0.58%	21,624	8.29%	284	0.11%	6,710	2.57%	78,978	30.29%
16	262,182	97.15%	240,309	91.66%	7,065	2.69%	1,272	0.49%	1,592	0.61%	87	0.03%	4,391	1.67%	21,873	8.34%
17	266,557	95.28%	228,662	85.78%	12,412	4.66%	1,907	0.72%	2,772	1.04%	173	0.06%	8,059	3.02%	37,895	14.22%
18	268,135	94.26%	227,428	84.82%	13,822	5.15%	1,800	0.67%	4,722	1.76%	82	0.03%	4,880	1.82%	40,707	15.18%
19	262,619	96.48%	205,399	78.21%	31,468	11.98%	1,862	0.71%	7,362	2.80%	137	0.05%	7,138	2.72%	57,220	21.79%
20	262,284	93.68%	201,975	77.01%	24,708	9.42%	2,326	0.89%	5,505	2.10%	162	0.06%	11,021	4.20%	60,309	22.99%
21	271,390	89.73%	191,558	70.58%	33,836	12.47%	2,023	0.75%	7,783	2.87%	169	0.06%	8,159	3.01%	79,832	29.42%
22	264,573	93.16%	239,227	90.42%	1,909	0.72%	913	0.35%	2,221	0.84%	182	0.07%	2,026	0.77%	25,346	9.58%
23	263,780	95.38%	228,440	86.60%	10,286	3.90%	1,056	0.40%	7,345	2.78%	94	0.04%	4,363	1.65%	35,340	13.40%
24	271,211	90.73%	230,099	84.84%	5,007	1.85%	768	0.28%	6,741	2.49%	81	0.03%	3,378	1.25%	41,112	15.16%
25	264,345	94.99%	239,323	90.53%	6,359	2.41%	1,183	0.45%	1,289	0.49%	113	0.04%	2,840	1.07%	25,022	9.47%
26	266,938	92.17%	230,863	86.49%	8,897	3.33%	1,284	0.48%	1,232	0.46%	85	0.03%	3,673	1.38%	36,075	13.51%
27	269,043	91.21%	159,403	59.25%	76,526	28.44%	1,902	0.71%	3,498	1.30%	144	0.05%	3,928	1.46%	109,640	40.75%
28	265,180	92.80%	213,118	80.37%	13,058	4.92%	1,239	0.47%	13,746	5.18%	171	0.06%	4,744	1.79%	52,062	19.63%
29	263,566	92.62%	153,791	58.35%	46,770	17.75%	3,122	1.18%	12,612	4.79%	189	0.07%	27,643	10.49%	109,775	41.65%
30	264,560	96.35%	220,974	83.53%	16,190	6.12%	1,634	0.62%	6,561	2.48%	171	0.06%	9,377	3.54%	43,586	16.47%
31	267,918	92.17%	219,847	82.06%	4,949	1.85%	1,596	0.60%	8,044	3.00%	169	0.06%	12,331	4.60%	48,071	17.94%
32	270,401	90.80%	209,763	77.57%	25,346	9.37%	2,853	1.06%	1,579	0.58%	133	0.05%	5,858	2.17%	60,638	22.43%
33	267,378	94.93%	239,582	89.60%	7,067	2.64%	1,284	0.48%	1,264	0.47%	154	0.06%	4,459	1.67%	27,796	10.40%
34	261,805	97.82%	240,986	92.05%	6,199	2.37%	3,596	1.37%	2,053	0.78%	135	0.05%	3,126	1.19%	20,819	7.95%
35	268,708	94.33%	206,032	76.68%	34,554	12.86%	1,496	0.56%	4,316	1.61%	191	0.07%	6,880	2.56%	62,676	23.32%
36	270,486	95.71%	252,817	93.47%	1,171	0.43%	1,781	0.66%	1,185	0.44%	114	0.04%	1,804	0.67%	17,669	6.53%
37	261,707	94.46%	231,238	88.36%	2,158	0.82%	9,604	3.67%	1,711	0.65%	219	0.08%	2,282	0.87%	30,469	11.64%
38	266,616	95.07%	236,793	88.81%	4,677	1.75%	8,349	3.13%	1,977	0.74%	162	0.06%	1,502	0.56%	29,823	11.19%

DISTRICT

POPTOT

PercentTot

POPWH\_A

PPopWH\_A POPBL\_W

PPopBL\_W

POPNA\_W

## 10 DISTRICT POPTOT PPopHisp PonNonW **PPonNonW** PercentTot 1,604 270.366 95.44% 104.701 38.73% 95.292 35.25% 1.558 0.58% 2.548 0.94% 155 0.06% 0.59% 52.183 19.30% 165.665 61.27% 2 260 296 97 70% 159 635 61.33% 64.910 24 94% 915 0 35% 4 348 1 67% 81 0.03% 1,475 0 57% 22,935 8.81% 100,661 38.67% 3 268,291 96.67% 107,222 39.96% 114,719 42.76% 1,572 0.59% 27,584 10.28% 139 0.05% 1,695 0.63% 6,427 2.40% 161,069 60.04% 4 259.877 99.29% 194,866 74.98% 38.583 14.85% 1,269 0.49% 6,043 2.33% 107 0.04% 1,338 0.51% 15,822 6.09% 65,011 25.02% 260,723 96.10% 51,122 19.61% 1,213 0.47% 24,181 9.27% 107 0.04% 1,359 0.52% 10,328 3.96% 98,473 37.77% 5 162,250 62.23% 6 269,435 93.81% 118,953 44.15% 108,015 40.09% 1,419 0.53% 14,819 5.50% 82 0.03% 1,583 0.59% 7,895 2.93% 150,482 55.85% 258,715 98.73% 101,027 39.05% 119,299 1,361 0.53% 12,240 4.73% 144 0.06% 1,826 0.71% 19,544 7.55% 157,688 60.95% 7 46.11% 8 267,500 94.16% 127,958 47.83% 109,771 41.04% 1,157 0.43% 4,748 1.77% 147 0.05% 1,472 0.55% 6,632 2.48% 139,542 52.17% q 260.091 97.52% 185,502 71.32% 11,675 4.49% 564 0.22% 45,073 17.33% 79 0.03% 997 0 38% 9,753 3.75% 74,589 28.68% 10 260,891 100.39% 124,350 47.66% 117,883 45.18% 1,271 0.49% 11,151 4.27% 95 0.04% 1,363 0.52% 5,798 2.22% 136,541 52.34% 93.47% 94 7,397 88,808 11 267,881 179,073 66.85% 55,482 20.71% 896 0.33% 6,370 2.38% 0.04% 1,067 0.40% 2.76% 33.15% 12 270,210 92.10% 202,670 75.00% 33,337 12.34% 890 0.33% 3,330 1.23% 99 0.04% 1,035 0.38% 7,502 2.78% 67,540 25.00% 13 258,822 100.26% 190,382 73.56% 22,521 8.70% 529 0.20% 36,038 13.92% 108 0.04% 1,248 0.48% 8,657 3.34% 68,440 26.44% 14 132 0.48% 11,345 4.33% 46,473 17.73% 262.085 99.33% 215,612 82.27% 17,000 6.49% 923 0.35% 14,064 5.37% 0.05% 1,262 15 83,253 260,766 98.67% 177,513 68.07% 38,943 14.93% 1,035 0.40% 21,505 8.25% 258 0.10% 1,844 0.71% 16,199 6.21% 31.93% 16 262.182 99.01% 234.605 89.48% 6.681 2.55% 0.35% 1.546 0.59% 71 0.03% 920 0.35% 14.842 5.66% 27,577 10.52% 916 17 266,557 96.96% 224,844 84.35% 12,001 4.50% 1,467 0.55% 2,717 1.02% 154 0.06% 1,103 0.41% 16,155 6.06% 41,713 15.65% 18 223,661 83.41% 13,494 4,670 1.74% 0.42% 12,040 4.49% 44,474 16.59% 268,135 95.65% 5.03% 1,409 0.53% 71 0.03% 1,120 19 61,015 201,604 30,546 105 15,431 23.23% 262,619 98.19% 76.77% 11.63% 1,245 0.47% 7,282 2.77% 0.04% 1,642 0.63% 5.88% 20 262,284 95.97% 196,995 75.11% 24,119 9.20% 1,581 0.60% 5,453 2.08% 125 0.05% 1,084 0.41% 22,363 8.53% 65,289 24.89% 21 271.390 92.32% 184.818 68.10% 32,230 11.88% 1.346 0.50% 7.649 2.82% 124 0.05% 1,411 0.52% 22,969 8.46% 86.572 31.90% 22 173 0.30% 27,774 264,573 94.52% 236,799 89.50% 1,841 0.70% 751 0.28% 2,155 0.81% 0.07% 798 7,559 2.86% 10.50% 23 263.780 97.44% 224.651 85.17% 9.960 3.78% 760 0.29% 7,272 2.76% 75 0.03% 1.031 0.39% 13.274 5.03% 39.129 14.83% 24 69 43,651 271,211 92.43% 227,560 83.91% 4,800 1.77% 533 0.20% 6,677 2.46% 0.03% 816 0.30% 10,221 3.77% 16.09% 25 264.345 96.23% 235.725 89.17% 6.065 2.29% 923 0.35% 1.252 0.47% 95 0.04% 698 0.26% 9.626 3.64% 28,620 10.83% 26 40,375 266.938 93.64% 226.563 84.87% 8.567 3.21% 971 0.36% 1.184 0.44% 72 0.03% 702 0.26% 11.907 4.46% 15.13% 27 57.85% 1,552 135 10,963 4.07% 113,407 42.15% 269,043 92.40% 155,636 75,602 28.10% 0.58% 3,454 1.28% 0.05% 1,262 0.47% 28 265,180 94.52% 208.774 78.73% 12,605 4.75% 0.33% 13,643 5.14% 150 0.43% 13.444 5.07% 56,406 21.27% 873 0.06% 1,149 29 117,743 263,566 96.43% 145,823 55.33% 44,369 16.83% 1,150 0.44% 12,410 4.71% 121 0.05% 1,363 0.52% 48,920 18.56% 44.67% 30 264,560 98.37% 216,019 81.65% 1,023 6,444 2.44% 125 0.40% 20,157 7.62% 48,541 18.35% 15,413 5.83% 0.39% 0.05% 1,057 31 267,918 95.39% 212,884 79.46% 4,325 1.61% 0.24% 7,733 2.89% 144 0.05% 0.30% 29,032 10.84% 55,034 20.54% 653 792 32 270,401 92.58% 204,357 75.58% 24.882 9.20% 2,297 0.85% 1,518 0.56% 107 0.04% 914 0.34% 16,252 6.01% 66.044 24.42% 33 267,378 96.39% 234,208 87.59% 6,805 2.55% 995 0.37% 1,221 0.46% 111 0.04% 688 0.26% 13,697 5.12% 33,170 12.41% 34 261,805 98.88% 237,040 90.54% 5,966 2.28% 3,122 1.19% 2,006 0.77% 113 0.04% 795 0.30% 9,832 3.76% 24,765 9.46% 35 268,708 96.65% 199.029 74.07% 33.196 12.35% 990 0.37% 4.240 1.58% 169 0.06% 1.252 0.47% 20.834 7.75% 69.679 25.93% 36 250,603 92.65% 1,569 0.58% 1,104 0.41% 0.27% 5,493 2.03% 19,883 7.35% 270.486 96.38% 1.084 0.40% 92 0.03% 736 37 261,707 95.33% 229,096 87.54% 2,068 0.79% 9,214 3.52% 1,659 0.63% 185 0.07% 851 0.33% 6,422 2.45% 32,611 12.46% 38 266 616 95.67% 235,001 88.14% 4,550 1.71% 8,105 3 04% 1,928 0.72% 118 0.04% 740 0.28% 4,638 1.74% 31,615 11.86%

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VADTOT												VADOT A			DVADVV	Dev New M	DD No N/
201.593	PercentTot 100.00%	VAPWH_A 92.620	<b>PVAPWH_A</b> 45.94%	VAPBL_A 71.240	PVAPBL_A 35.34%	VAPNA_A	<b>PVAPNA_A</b> 0.85%	VAPAS_A 1,918	<b>PVAPAS_A</b> 0.95%	VAPPI_A 91	<b>PVAPPI_A</b> 0.05%	VAPOT	PVAPOT_A		<b>PVAPXX</b> 8.04%	PopNonW 108,973	PPopNonW 54.06%
188,578	100.00%	92,620	45.94% 63.20%	46,567	24.69%	1,706 799	0.42%	3,471	1.84%	38	0.05%	7.756	8.84%	16,205	5.71%	69,399	36.80%
212.874	100.00%	90.601	42.56%	90,093	42.32%	594	0.28%	20,192	9.49%	52	0.02%	2.022	0.95%	9,319	4.38%	122.273	57,44%
212,014	100.00%	163,496	76.14%	28,869	13.45%	989	0.46%	4,629	2.16%	52	0.02%	3,123	1.50%	13,459	6.27%	51,221	23.86%
205,113	100.00%	135,360	65.99%	37,695	18.38%	770	0.38%	18,220	8.88%	29	0.01%	2,357	1.15%	10,688	5.21%	69,753	34.01%
205,711	100.00%	101,888	49.53%	80,918	39.34%	581	0.28%	11,437	5.56%	37	0.02%	2,123	1.03%	8,727	4.24%	103,823	50.47%
208,010	100.00%	86,759	41.71%	93,775	45.08%	739	0.36%	9,850	4.74%	70	0.03%	6,600	3.17%	10,217	4.91%	121,251	58.29%
206,961	100.00%	108,953	52.64%	83,681	40.43%	390	0.19%	3,868	1.87%	61	0.03%	1,709	0.83%	8,299	4.01%	98,008	47.36%
206,406	100.00%	152,225	73.75%	8,846	4.29%	406	0.20%	33,532	16.25%	30	0.01%	2,419	1.17%	8,948	4.34%	54,181	26.25%
207,211	100.00%	104,897	50.62%	84,231	40.65%	519	0.25%	8,220	3.97%	44	0.02%	1,529	0.74%	7,771	3.75%	102,314	49.38%
204,523	100.00%	148,634	72.67%	39,472	19.30%	514	0.25%	4,852	2.37%	61	0.03%	1,605	0.78%	9,385	4.59%	55,889	27.33%
207,870	100.00%	169,806	81.69%	24,136	11.61%	606	0.29%	2,722	1.31%	46	0.02%	1,594	0.77%	8,960	4.31%	38,064	18.31%
213,186	100.00%	157,849	74.04%	17,579	8.25%	305	0.14%	26,547	12.45%	52	0.02%	2,054	0.96%	8,800	4.13%	55,337	25.96%
218,191	100.00%	178,730	81.91%	13,185	6.04%	710	0.33%	11,739	5.38%	61	0.03%	2,334	1.07%	11,432	5.24%	39,461	18.09%
221,289	100.00%	153,722	69.47%	29,804	13.47%	774	0.35%	17,961	8.12%	159	0.07%	4,562	2.06%	14,307	6.47%	67,567	30.53%
213,755	100.00%	192,319	89.97%	5,174	2.42%	895	0.42%	1,230	0.58%	34	0.02%	3,109	1.45%	10,994	5.14%	21,436	10.03%
209,069	100.00%	180,693	86.43%	9,155	4.38%	1,234	0.59%	2,153	1.03%	85	0.04%	5,061	2.42%	10,688	5.11%	28,376	13.57%
205,401	100.00%	178,340	86.83%	9,700	4.72%	1,092	0.53%	3,226	1.57%	30	0.01%	3,157	1.54%	9,856	4.80%	27,061	13.17%
211,508	100.00%	166,300	78.63%	21,517	10.17%	995	0.47%	5,781	2.73%	68	0.03%	4,822	2.28%	12,025	5.69%	45,208	21.37%
200,292	100.00%	160,236	80.00%	16,912	8.44%	1,393	0.70%	3,926	1.96%	80	0.04%	6,877	3.43%	10,868	5.43%	40,056	20.00%
205,416	100.00%	155,578	75.74%	23,593	11.49%	1,159	0.56%	5,726	2.79%	69	0.03%	5,558	2.71%	13,733	6.69%	49,838	24.26%
204,483	100.00%	189,992	92.91%	1,341	0.66%	698	0.34%	1,730	0.85%	92	0.04%	1,366	0.67%	9,264	4.53%	14,491	7.09%
211,880	100.00%	183,813	86.75%	7,586	3.58%	676	0.32%	5,595	2.64%	58	0.03%	2,879	1.36%	11,273	5.32%	28,067	13.25%
203,066	100.00%	182,390	89.82%	3,531	1.74%	450	0.22%	4,982	2.45%	36	0.02%	2,155	1.06%	9,522	4.69%	20,676	10.18%
209,073	100.00%	191,958	91.81%	4,693	2.24%	834	0.40%	987	0.47%	52	0.02%	2,077	0.99%	8,472	4.05%	17,115	8.19%
206,886	100.00%	185,606	89.71%	6,579	3.18%	888	0.43%	926	0.45%	40	0.02%	2,585	1.25%	10,262	4.96%	21,280	10.29%
200,250	100.00%	128,596	64.22%	54,972	27.45%	931	0.46%	2,675	1.34%	49	0.02%	2,568	1.28%	10,459	5.22%	71,654	35.78%
210,771	100.00%	174,475	82.78%	10,352	4.91%	846	0.40%	11,197	5.31%	90	0.04%	3,488	1.65%	10,323	4.90%	36,296	17.22%
200,247	100.00%	126,054	62.95%	31,504	15.73%	1,661	0.83%	9,327	4.66%	64	0.03%	17,063	8.52%	14,574	7.28%	74,193	37.05%
212,420	100.00%	178,373	83.97%	10,974	5.17%	1,014	0.48%	4,934	2.32%	67	0.03%	6,295	2.96%	10,763	5.07%	34,047	16.03%
200,843	100.00%	171,463	85.37%	3,016	1.50%	931	0.46%	5,944	2.96%	63	0.03%	8,208	4.09%	11,218	5.59%	29,380	14.63%
205,945	100.00%	169,962	82.53%	18,278	8.88%	1,982	0.96%	1,154	0.56%	43	0.02%	3,799	1.84%	10,727	5.21%	35,983	17.47%
207,138	100.00%	187,252	90.40%	6,350	3.07%	925	0.45%	915	0.44%	61	0.03%	2,978	1.44%	8,657	4.18%	19,886	9.60%
213,991	100.00%	193,584	90.46%	5,092	2.38%	2,514	1.17%	1,562	0.73%	38	0.02%	2,160	1.01%	9,041	4.22%	20,407	9.54%
211,487	100.00%	166,986	78.96%	24,324	11.50%	900	0.43%	3,328	1.57%	107	0.05%	4,784	2.26%	11,058	5.23%	44,501	21.04%
220,106	100.00%	207,743	94.38%	675	0.31%	1,293	0.59%	830	0.38%	27	0.01%	1,224	0.56%	8,314	3.78%	12,363	5.62%
213,146	100.00%	191,653	89.92%	1,636	0.77%	6,882	3.23%	1,235	0.58%	114	0.05%	1,615	0.76%	10,011	4.70%	21,493	10.08%
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21,580

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DISTRICT	VAPTOT	PercentTot	VAPNHWH_A	<b>PVAPNHWH</b>	VAPNHBL_A	PVAPNHBL_A	VAPNHNA_A	<b>PVAPNHNA</b>	AVAPNHAS_A	PVAPNHAS_A	APNHPI_A	PVAPNHPI_A	VAPNHOT_A	PVAPNHOT_A	VAPHISP	PVAPHisp		<b>PVAPNHXX</b>	PopNonW	PPopNonW
1	201,593	100.00%	86,453	42.88%	70,618	35.03%	642	0.32%	1,866	0.93%	65	0.03%	809	0.40%	33,932	16.83%	7,208	3.58%	115,140	57.12%
2	188,578	100.00%	116,637	61.85%	46,137	24.47%	394	0.21%	3,443	1.83%	22	0.01%	800	0.42%	14,858	7.88%	6,287	3.33%	71,941	38.15%
3	212,874	100.00%	89,311	41.95%	89,608	42.09%	506	0.24%	20,137	9.46%	44	0.02%	922	0.43%	4,656	2.19%	7,690	3.61%	123,563	58.05%
4	214,717	100.00%	160,406	74.71%	28,592	13.32%	731	0.34%	4,589	2.14%	43	0.02%	718	0.33%	10702	4.98%	8,936	4.16%	54,311	25.29%
5	205,113	100.00%	133,513	65.09%	37,441	18.25%	567	0.28%	18,183	8.86%	23	0.01%	753	0.37%	7,015	3.42%	7,618	3.71%	71,600	34.91%
6	205,711	100.00%	100,696	48.95%	80,530	39.15%	473	0.23%	11,408	5.55%	32	0.02%	884	0.43%	5,356	2.60%	6,332	3.08%	105,015	51.05%
7	208,010	100.00%	84,324	40.54%	93,155	44.78%	431	0.21%	9,793	4.71%	68	0.03%	1,025	0.49%	12,903	6.20%	6,311	3.03%	123,686	59.46%
8	206,961	100.00%	107,704	52.04%	83,298	40.25%	292	0.14%	3,836	1.85%	54	0.03%	859	0.42%	<b>4</b> ,714	2.28%	6,204	3.00%	99,257	47.96%
9	206,406	100.00%	150,997	73.16%	8,745	4.24%	261	0.13%	33,490	16.23%	24	0.01%	595	0.29%	6,556	3.18%	5,738	2.78%	55,409	26.84%
10	207,211	100.00%	103,894	50.14%	83,778	40.43%	443	0.21%	8,186	3.95%	32	0.02%	689	0.33%	3,945	1.90%	6,244	3.01%	103,317	49.86%
11	204,523	100.00%	147,356	72.05%	39,238	19.19%	407	0.20%	4,812	2.35%	45	0.02%	580	0.28%	4,862	2.38%	7,223	3.53%	57,167	27.95%
12	207,870	100.00%	168,397	81.01%	23,939	11.52%	507	0.24%	2,681	1.29%	34	0.02%	637	0.31%	4,870	2.34%	6,805	3.27%	39,473	18.99%
13	213,186	100.00%	156,620	73.47%	17,468	8.19%	214	0.10%	26,501	12.43%	50	0.02%	815	0.38%	5,903	2.77%	5,615	2.63%	56,566	26.53%
14	218,191	100.00%	176,335	80.82%	13,008	5.96%	528	0.24%	11,688	5.36%	61	0.03%	727	0.33%	7,345	3.37%	8,499	3.90%	41,856	19.18%
15	221,289	100.00%	150,495	68.01%	29,393	13.28%	493	0.22%	17,902	8.09%	140	0.06%	1,143	0.52%	11,777	5.32%	9,946	4.49%	70,794	31.99%
16	213,755	100.00%	188,946	88.39%	5,043	2.36%	661	0.31%	1,216	0.57%	29	0.01%	540	0.25%	9,529	4.46%	7,791	3.64%	24,809	11.61%
17	209,069	100.00%	178,511	85.38%	9,033	4.32%	983	0.47%	2,131	1.02%	82	0.04%	647	0.31%	9,861	4.72%	7,821	3.74%	30,558	14.62%
18	205,401	100.00%	176,180	85.77%	9,575	4.66%	905	0.44%	3,206	1.56%	29	0.01%	633	0.31%	7,438	3.62%	7,435	3.62%	29,221	14.23%
19	211,508	100.00%	163,894	77.49%	21,207	10.03%	682	0.32%	5,730	2.71%	55	0.03%	949	0.45%	10,143	4.80%	8,848	4.18%	47,614	22.51%
20	200,292	100.00%	157,518	78.64%	16,701	8.34%	987	0.49%	3,905	1.95%	66	0.03%	645	0.32%	13,485	6.73%	6,985	3.49%	42,774	21.36%
21	205,416	100.00%	151,385	73.70%	23,065	11.23%	742	0.36%	5,681	2.77%	54	0.03%	785	0.38%	15,157	7.38%	8,547	4.16%	54,031	26.30%
22	204,483	100.00%	188,482	92.17%	1,324	0.65%	593	0.29%	1,703	0.83%	91	0.04%	529	0.26%	4,852	2.37%	6,909	3.38%	16,001	7.83%
23	211,880	100.00%	181,480	85.65%	7,458	3.52%	513	0.24%	5,557	2.62%	48	0.02%	647	0.31%	8,591	4.05%	7,586	3.58%	30,400	14.35%
24	203,066	100.00%	180,853	89.06%	3,453	1.70%	328	0.16%	4,961	2.44%	32	0.02%	485	0.24%	6,584	3.24%	6,370	3.14%	22,213	10.94%
25	209,073	100.00%	189,877	90.82%	4,570	2.19%	667	0.32%	970	0.46%	51	0.02%	454	0.22%	6,157	2.94%	6,327	3.03%	19,196	9.18%
26	206,886	100.00%	183,108	88.51%	6,468	3.13%	725	0.35%	906	0.44%	37	0.02%	440	0.21%	7,667	3.71%	7,535	3.64%	23,778	11.49%
27	200,250	100.00%	126,163	63.00%	54,609	27.27%	720	0.36%	2,651	1.32%	45	0.02%	679	0.34%	7,329	3.66%	8,054	4.02%	74,087	37.00%
28	210,771	100.00%	171,634	81.43%	10,192	4.84%	630	0.30%	11,150	5.29%	87	0.04%	718	0.34%	9,225	4.38%	7,135	3.39%	39,137	18.57%
29	200,247	100.00%	121,293	60.57%	30,776	15.37%	544	0.27%	9,276	4.63%	50	0.02%	716	0.36%	31,031	15.50%	6,561	3.28%	78,954	39.43%
30	212,420	100.00%	175,285	82.52%	10,757	5.06%	700	0.33%	4,892	2.30%	50	0.02%	625	0.29%	13,136	6.18%	6,975	3.28%	37,135	17.48%
31	200,843	100.00%	167,340	83.32%	2,832	1.41%	447	0.22%	5,872	2.92%	59	0.03%	493	0.25%	18,527	9.22%	5,273	2.63%	33,503	16.68%
32	205,945	100.00%	166,764	80.98%	18,116	8.80%	1,669	0.81%	1,130	0.55%	38	0.02%	512	0.25%	10,125	4.92%	7,591	3.69%	39,181	19.02%
33	207,138	100.00%	183,636	88.65%	6,188	2.99%	759	0.37%	901	0.43%	49	0.02%	426	0.21%	8,976	4.33%	6,203	2.99%	23,502	11.35%
34	213,991	100.00%	191,160	89.33%	4,997	2.34%	2,237	1.05%	1,545	0.72%	33	0.02%	490	0.23%	6,440	3.01%	7,089	3.31%	22,831	10.67%
35	211,487	100.00%	162,696	76.93%	23,888	11.30%	594	0.28%	3,285	1.55%	102	0.05%	751	0.36%	13,376	6.32%	6,795	3.21%	48,791	23.07%
36	220,106	100.00%	206,448	93.79%	660	0.30%	1,200	0.55%	808	0.37%	23	0.01%	531	0.24%	3,408	1.55%	7,028	3.19%	13,658	6.21%
37	213,146	100.00%	190,341	89.30%	1,605	0.75%	6,691	3.14%	1,211	0.57%	92	0.04%	581	0.27%	4,159	1.95%	8,466	3.97%	22,805	10.70%
38	217,404	100.00%	194,624	89.52%	4,122	1.90%	5,591	2.57%	1,567	0.72%	46	0.02%	498	0.23%	3,105	1.43%	7,851	3.61%	22,780	10.48%

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PercentTot	VAPWH C	PVAPWH C	VAPBL C	PVAPBL C	VAPNA C	PVAPNA C	VAPAS C	PVAPAS C	VAPPI_C	PVAPPI C	VAPOT C	<b>PVAPOT C</b>	PopNonW	PPopNonW
108.59%	107,284	53.22%	74,983	37.20%	5,705	2.83%	2,817	1.40%	289	<b>()</b> 14%	27,829	13.80%	94,309	46.78%
106.03%	129,036	68.43%	48,869	25.91%	2,741	1.45%	5,484	2.91%	183	010%	13,631	7.23%	59,542	31.57%
104.73%	98,545	46.29%	93,904	44.11%	3,397	1.60%	22,233	10.44%	206	0.10%	4,665	2.19%	114,329	53.71%
106.60%	176,148	82.04%	31,452	14.65%	5,772	2.69%	5,588	2.60%	224	0.10%	9,706	4.52%	38,569	17.96%
105.54%	145,132	70.76%	40,374	19.68%	4,260	2.08%	19,491	9.50%	185	<u> </u>	7,032	3.43%	59,981	29.24%
104.61%	109,360	53.16%	84,132	40.90%	3,363	1.63%	12,475	6.06%	135	-907%	5,720	2.78%	96,351	46.84%
105.34%	95,389	45.86%	97,859	47.05%	3,216	1.55%	10,976	5.28%	200	<b>2</b> 10%	11,482	5.52%	112,621	54.14%
104.36%	116,136	56.11%	86,743	41.91%	2,727	1.32%	5,134	2.48%	197	0.10%	5,050	2.44%	90,825	43.89%
104.52%	160,736	77.87%	9,985	4.84%	2,365	1.15%	35,254	17.08%	141	0.07%	7,246	3.51%	45,670	22.13%
104.04%	111,656	53.89%	87,144	42.06%	3,118	1.50%	9,352	4.51%	184	0.09%	4,132	1.99%	95,555	46.11%
104.83%	157,342	76.93%	41,840	20.46%	3,789	1.85%	5,794	2.83%	170	0.08%	5,462	2.67%	47,181	23.07%
104.50%	178,257	85.75%	26,028	12.52%	3,712	1.79%	3,727	1.79%	155	0.07%	5,354	2.58%	29,613	14.25%
104.35%	166,129	77.93%	18,919	8.87%	2,211	1.04%	28,129	13.19%	154	0.07%	6,924	3.25%	47,057	22.07%
105.56%	189,643	86.92%	15,364	7.04%	4,375	2.01%	13,448	6.16%	217	0.10%	7,267	3.33%	28,548	13.08%
106.97%	167,053	75.49%	33,632	15.20%	4,213	1.90%	20,729	9.37%	364	0.16%	10,712	4.84%	54,236	24.51%
105.34%	203,070	95.00%	6,455	3.02%	5,522	2.58%	1,861	0.87%	130	0.06%	8,140	3.81%	10,685	5.00%
105.38%	190,964	91.34%	11,005	5.26%	5,244	2.51%	2,886	1.38%	215	0.10%	10,006	4.79%	18,105	8.66%
105.05%	187,847	91.45%	11,608	5.65%	4,889	2.38%	3,944	1.92%	164	0.08%	7,330	3.57%	17,554	8.55%
106.06%	177,580	83.96%	24,809	11.73%	5,026	2.38%	7,000	3.31%	214	0.10%	9,699	4.59%	33,928	16.04%
105.70%	170,595	85.17%	18,663	9.32%	4,977	2.48%	4,636	2.31%	219	0.11%	12,610	6.30%	29,697	14.83%
107.13%	168,375	81.97%	27,338	13.31%	5,300	2.58%	6,684	3.25%	261	0.13%	12,103	5.89%	37,041	18.03%
104.69%	199,080	97.36%	2,067	1.01%	4,530	2.22%	2,592	1.27%	213	0.10%	5,598	2.74%	5,403	2.64%
105.54%	194,749	91.91%	8,897	4.20%	4,284	2.02%	6,771	3.20%	157	0.07%	8,754	4.13%	17,131	8.09%
104.90%	191,644	94.38%	4,423	2.18%	3,479	1.71%	6,061	2.98%	114	0.06%	7,295	3.59%	11,422	5.62%
104.21%	200,242	95.78%	5,774	2.76%	4,195	2.01%	1,509	0.72%	135	0.06%	6,027	2.88%	8,831	4.22%
105.12%	195,616	94.55%	7,712	3.73%	5,194	2.51%	1,429	0.69%	134	0.06%	7,397	3.58%	11,270	5.45%
105.55%	138,136	68.98%	58,223	29.08%	5,009	2.50%	3,429	1.71%	179	0.09%	6,380	3.19%	62,114	31.02%
105.15%	184,437	87.51%	12,181	5.78%	3,989	1.89%	12,540	5.95%	254	0.12%	8,224	3.90%	26,334	12.49%
107.67%	139,166	69.50%	35,114	17.54%	4,556	2.28%	10,524	5.26%	235	0.12%	26,005	12.99%	61,081	30.50%
105.36%	188,598	88.79%	13,192	6.21%	4,031	1.90%	6,180	2.91%	254	0.12%	11,544	5.43%	23,822	11.21%
105.80%	182,247	90.74%	4,219	2.10%	3,491	1.74%	6,855	3.41%	237	0.12%	15,441	7.69%	18,596	9.26%
105.46%	180,306	87.55%	19,918	9.67%	6,063	2.94%	1,796	0.87%	165	0.08%	8,933	4.34%	25,639	12.45%
104.36%	195,735	94.49%	7,233	3.49%	4,219	2.04%	1,441	0.70%	195	0.09%	7,337	3.54%	11,403	5.51%

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213,991

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104.44%

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104.35%

202,375

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215,859

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83.97%

98.07%

94.50%

94.14%

6,281

26,554

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4,882

2.94%

12.56%

0.64%

1.13%

2.25%

6,513

4,286

5,437

12,379

10,953

3.04%

2.03%

2.47%

5.81%

5.04%

2,161

4,008

1,361

1,853

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206

0.06%

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6,013

10,434

4,627

5,162

3,838

2.81%

4.93%

2.10%

2.42%

1.77%

11,616

33,910

4,247

11,714

12,736

5.43%

16.03%

1.93%

5.50%

5.86%

DISTRICT	VAPTOT	PercentTot								<b>PVAPNHAS C</b>		<b>PVAPNHPI C</b>				<b>PVAPHisp</b>	PopNonW	PPopNonW
1	201,593	103.93%	92,718	45.99%	73,778	36.60%	3,810	1.89%	2,677	1.33%	236	0.12%	2,358.	1.17%	33,932	16.83%	108,875	54.01%
2	188.578	103.53%	122.350	64.88%	48.076	25.49%	1,986	1.05%	5,399	2.86%	143	0.08%	2.430	1.29%	14.858	7.88%	66.228	35.12%
3	212,874	103.88%	95,814	45.01%	93,122	43.75%	3,080	1.45%	22,116	10.39%	175	0.08%	2,172	1.02%	4,656	2.19%	117,060	54.99%
4	214,717	104.38%	168.727	78.58%	30.874	14.38%	5,144	2.40%	5.471	2.55%	187	0.09%	3,021	1.41%	10.702	4.98%	45,990	21.42%
5	205,113	103.94%	140,410	68.45%	39,836	19.42%	3,764	1.84%	19.404	9.46%	157	0.08%	2,601	1.27%	7,015	3.42%	64,703	31.55%
6	205,711	103.35%	106,037	51.55%	83,432	40.56%	2,973	1.45%	12,382	6.02%	120	0.06%	2,300	1.12%	5,356	2.60%	99,674	48.45%
7	208,010	103.33%	89.423	42.99%	96,784	46.53%	2,541	1.22%	10.860	5.22%	174	0.08%	2.244	1.08%	12,903	6.20%	118,587	57.01%
8	206,961	103.24%	112,933	54.57%	86,129	41.62%	2,371	1.15%	5.043	2.44%	178	0.09%	2,293	1.11%	4,714	2.28%	94,028	45.43%
9	206,406	102.88%	156,419	75.78%	9.756	4.73%	1,958	0.95%	35,163	17.04%	125	0.06%	2.368	1.15%	6.556	3.18%	49,987	24.22%
10	207,211	103.25%	109,244	52.72%	86,496	41.74%	2,849	1.37%	9,276	4.48%	157	0.08%	1,968	0.95%	3,945	1.90%	97,967	47.28%
11	204.523	103.69%	154.041	75.32%	41.399	20.24%	3.452	1.69%	5.712	2.79%	138	0.07%	2,476	1.21%	4,862	2.38%	50,482	24.68%
12	207,870	103.41%	174,789	84.09%	25,696	12.36%	3,427	1.65%	3,621	1.74%	134	0.06%	2,415	1.16%	4,870	2.34%	33,081	15.91%
13	213,186	102.76%	161,843	75.92%	18,646	8.75%	1,889	0.89%	28,022	13.14%	139	0.07%	2,635	1.24%	5,903	2.77%	51,343	24.08%
14	218,191	104.10%	184,460	84.54%	14,998	6.87%	3,824	1.75%	13,327	6.11%	192	0.09%	2,990	1.37%	7,345	3.37%	33,731	15.46%
15	221,289	104.82%	159,699	72.17%	32,776	14.81%	3,506	1.58%	20,577	9.30%	332	0.15%	3,288	1.49%	11,777	5.32%	61,590	27.83%
16	213,755	103.76%	196,588	91.97%	6,170	2.89%	4,945	2.31%	1,803	0.84%	105	0.05%	2,648	1.24%	9,529	4.46%	17,167	8.03%
17	209,069	103.90%	186,065	89.00%	10,694	5.12%	4,706	2.25%	2,794	1.34%	172	0.08%	2,932	1.40%	9,861	4.72%	23,004	11.00%
18	205,401	103.79%	183,373	89.28%	11,320	5.51%	4,447	2.17%	3,880	1.89%	140	0.07%	2,594	1.26%	7,438	3.62%	22,028	10.72%
19	211,508	104.45%	172,204	81.42%	24,199	11.44%	4,299	2.03%	6,908	3.27%	192	0.09%	2,971	1.40%	10,143	4.80%	39,304	18.58%
20	200,292	103.66%	164,183	81.97%	18,257	9.12%	4,232	2.11%	4,568	2.28%	185	0.09%	2,714	1.36%	13,485	6.73%	36,109	18.03%
21	205,416	104.42%	159,360	77.58%	26,232	12.77%	4,339	2.11%	6,553	3.19%	215	0.10%	2,639	1.28%	15,157	7.38%	46,056	22.42%
22	204,483	103.48%	195,264	95.49%	1,991	0.97%	4,206	2.06%	2,507	1.23%	198	0.10%	2,572	1.26%	4,852	2.37%	9,219	4.51%
23	211,880	103.70%	188,815	89.11%	8,611	4.06%	3,856	1.82%	6,666	3.15%	139	0.07%	3,033	1.43%	8,591	4.05%	23,065	10.89%
24	203,066	103.26%	187,056	92.12%	4,220	2.08%	3,095	1.52%	5,989	2.95%	104	0.05%	2,640	1.30%	6,584	3.24%	16,010	7.88%
25	209,073	103.11%	196,087	93.79%	5,511	2.64%	3,789	1.81%	1,446	0.69%	119	0.06%	2,472	1.18%	6,157	2.94%	12,986	6.21%
26	206,886	103.75%	190,498	92.08%	7,476	3.61%	4,741	2.29%	1,374	0.66%	115	0.06%	2,770	1.34%	7,667	3.71%	16,388	7.92%
27	200,250	104.26%	133,431	66.63%	57,639	28.78%	4,489	2.24%	3,364	1.68%	159	0.08%	2,370	1.18%	7,329	3.66%	66,819	33.37%
28	210,771	103.53%	178,545	84.71%	11,824	5.61%	3,456	1.64%	12,411	5.89%	221	0.10%	2,534	1.20%	9,225	4.38%	32,226	15.29%
29	200,247	103.49%	127,262	63.55%	33,492	16.73%	2,793	1.39%	10,360	5.17%	170	0.08%	2,118	1.06%	31,031	15.50%	72,985	36.45%
30	212,420	103.44%	181,949	85.66%	12,659	5.96%	3,338	1.57%	6,057	2.85%	203	0.10%	2,389	1.12%	13,136	6.18%	30,471	14.34%
31	200,843	102.73%	172,479	85.88%	3,795	1.89%	2,535	1.26%	6,699	3.34%	214	0.11%	2,086	1.04%	18,527	9.22%	28,364	14.12%
32	205,945	103.83%	174,096	84.54%	19,581	9.51%	5,373	2.61%	1,702	0.83%	148	0.07%	2,814	1.37%	10,125	4.92%	31,849	15.46%
33	207,138	103.09%	189,734	91.60%	6,938	3.35%	3,789	1.83%	1,387	0.67%	169	0.08%	2,536	1.22%	8,976	4.33%	17,404	8.40%
34	213,991	103.46%	198,056	92.55%	6,084	2.84%	5,966	2.79%	2,094	0.98%	125	0.06%	2,628	1.23%	6,440	3.01%	15,935	7.45%
35	211,487	103.36%	169,199	80.00%	25,829	12.21%	3,586	1.70%	3,924	1.86%	183	0.09%	2,491	1.18%	13,376	6.32%	42,288	20.00%
36	220,106	103.32%	213,364	96.94%	1,300	0.59%	5,121	2.33%	1,251	0.57%	150	0.07%	2,818	1.28%	3,408	1.55%	6,742	3.06%
37	213,146	104.10%	198,622	93.19%	2,320	1.09%	12,005	5.63%	1,797	0.84%	246	0.12%	2,726	1.28%	4,159	1.95%	14,524	6.81%
38	217,404	103.74%	202,334	93.07%	4,737	2.18%	10,699	4.92%	2,236	1.03%	161	0.07%	2,264	1.04%	3,105	1.43%	15,070	6.93%

## 10: DISTRICT VAPTOT VAPWH A **PVAPWH A** VAPBL W PVAPBL W VAPNA W PVAPNA W VAPAS W PVAPAS W VAPPI W VAPOT W **PVAPOT W** PopNonW PPopNonW PercentTot φ 152 201.593 93.51% 92.620 45.94% 72.474 35.95% 2.533 1.26% 2.098 1.04% 0.08% 18.630 9.24% 108.973 54.06% 119,179 47,317 1,237 93 N 0.05% 69,399 2 188,578 95.27% 63.20% 25.09% 0.66% 3,611 1.91% 8,219 4.36% 36.80% **U** 123 3 212,874 96.93% 90,601 42.56% 91,246 42.86% 1,378 0.65% 20,504 9.63% 0.06% 2.483 1.17% 122,273 57.44% 214.717 163.496 29.574 1.361 4.794 105 Н 3.585 51.221 94.50% 76.14% 13.77% 0.63% 2.23% 0.05% 1.67% 23.86% 5 5 205.113 95.70% 135.360 65.99% 38.456 18.75% 1.226 0.60% 18.445 8.99% 97 0.05% 2.718 1.33% 69.753 34.01% 74 2,604 F 205,711 96.99% 101,888 49.53% 82,057 39.89% 1,264 0.61% 11,642 5.66% 0.04% 1.27% 103,823 50.47% 96.63% 86,759 41.71% 95,172 45.75% 1,559 0.75% 10,127 4.87% 131 0.06% 7,257 3.49% 121,251 58.29% 7 208,010 108,953 84,702 1,056 4,075 125 2,017 98,008 8 206,961 97.08% 52.64% 40.93% 0.51% 1.97% 0.06% 0.97% 47.36% q 206.406 96.09% 152.225 73.75% 9.160 4.44% 563 0.27% 33.688 16.32% 76 0.04% 2.633 1.28% 54.181 26.25% 104.897 1.107 1,833 102,314 10 207.211 97.24% 50.62% 85,132 41.08% 0.53% 8.428 4.07% 91 0.04% 0.88% 49.38% 148.634 40.054 867 4.994 101 1,854 55.889 11 204.523 96.08% 72.67% 19.58% 0.42% 2.44% 0.05% 0.91% 27.33% 75 12 207,870 96.19% 169,806 81.69% 24,568 11.82% 858 0.41% 2,860 1.38% 0.04% 1,775 0.85% 38,064 18.31% 13 88 2,272 157,849 17,963 8.43% 550 0.26% 26,736 55,337 25.96% 213,186 96.37% 74.04% 12.54% 0.04% 1.07% 14 218,191 95.25% 178,730 81.91% 13,554 6.21% 968 0.44% 11,889 5.45% 137 0.06% 2,551 1.17% 39,461 18.09% 15 94.43% 153,722 30,614 1,188 18,204 244 4,991 2.26% 67,567 30.53% 221,289 69.47% 13.83% 0.54% 8.23% 0.11% 16 213,755 95.09% 192.319 89.97% 5,357 2.51% 1.014 0.47% 1.268 0.59% 61 0.03% 3.234 1.51% 21,436 10.03% 17 209,069 180,693 86.43% 9,469 4.53% 1,399 0.67% 2,266 116 0.06% 5,288 2.53% 28,376 13.57% 95.29% 1.08% 18 205,401 95.55% 178,340 86.83% 9,954 4.85% 1,268 0.62% 3,313 1.61% 61 0.03% 3,324 1.62% 27,061 13.17% 19 166,300 22,122 10.46% 1,406 5,930 108 5,131 2.43% 45,208 211,508 95.03% 78.63% 0.66% 2.80% 0.05% 21.37% 20 160,236 17.260 1,685 4,031 123 7,137 40,056 200,292 95.10% 80.00% 8.62% 0.84% 2.01% 0.06% 3.56% 20.00% 21 205,416 94.24% 155,578 75.74% 24,364 11.86% 1,612 0.78% 5,855 2.85% 140 0.07% 6,035 2.94% 49,838 24.26% 22 189,992 1.445 138 1.465 204,483 95.65% 92.91% 0.71% 738 0.36% 1,807 0.88% 0.07% 0.72% 14,491 7.09% 23 211,880 95.01% 183,813 86.75% 7,845 3.70% 821 0.39% 5,699 2.69% 84 0.04% 3,036 1.43% 28,067 13.25% 24 182.390 3.714 564 0.28% 5.069 56 2,305 20,676 203.066 95.58% 89.82% 1.83% 2.50% 0.03% 1.14% 10.18% 25 926 209.073 96.13% 191.958 91.81% 4.835 2.31% 0.44% 1.028 0.49% 71 0.03% 2.171 1.04% 17.115 8.19% 26 185,606 6,745 1,009 978 64 2,734 206,886 95.29% 89.71% 3.26% 0.49% 0.47% 0.03% 1.32% 21,280 10.29% 27 200,250 95.70% 128,596 64.22% 55,786 27.86% 1,537 0.77% 2,796 1.40% 95 0.05% 2,823 1.41% 71,654 35.78% 964 11,317 133 28 210,771 95.45% 174,475 82.78% 10,614 5.04% 0.46% 5.37% 0.06% 3,685 1.75% 36,296 17.22% 29 200.247 94.20% 126.054 62.95% 32.616 16.29% 2.223 1.11% 9.531 4.76% 140 0.07% 18.065 9.02% 74.193 37.05% 30 212,420 95.45% 178,373 83.97% 11,370 5.35% 1,231 0.58% 5,050 2.38% 130 0.06% 6,593 3.10% 34,047 16.03% 31 3,210 1,150 117 200,843 94.85% 171,463 85.37% 1.60% 0.57% 6,031 3.00% 0.06% 8,535 4.25% 29,380 14.63% 32 169,962 18,562 2,196 1,232 83 3,985 35,983 17.47% 205,945 95.18% 82.53% 9.01% 1.07% 0.60% 0.04% 1.93% 33 187,252 6,446 1,013 971 110 3,064 19,886 207,138 3.11% 0.49% 1.48% 96.00% 90.40% 0.47% 0.05% 9.60% 34 213.991 96.01% 193,584 90.46% 5,220 2.44% 2,652 1.24% 1,667 0.78% 79 0.04% 2,261 1.06% 20,407 9.54% 35 166.986 24,705 1.112 3.395 126 5.053 44.501 211.487 95.22% 78.96% 11.68% 0.53% 1.61% 0.06% 2.39% 21.04% 36 207.743 94.38% 779 0.35% 1.394 0.63% 930 0.42% 78 1.312 12.363 5.62% 220.106 96.42% 0.04% 0.60% 37 213,146 95.53% 191,653 89.92% 1,763 0.83% 7,001 3.28% 1,328 0.62% 181 0.08% 1,696 0.80% 21,493 10.08% 38 217,404 96.04% 195,824 90.07% 4,284 1.97% 5,804 2.67% 1,648 103 0.05% 1,125 0.52% 21,580 9.93% 0.76%

## 2022 10 WnoNao VAPNHWH A PVAPNHWH AVAPNHBL W PVAPNHBL W VAPNHNA W PVAPNHNA W VAPNHAS W PVAPNHAS W VAPNHPI W PVAPNHPI W VAPNHOT W PVAPNHOT WVAPHISP **PVAPHisp PPopNonW** 1,07 42.88% 71.506 35.47% 1.210 0.60% 2.010 1.00% 113 0.06% 0.53% 33.932 16.83% 115.140 57.12% 61 85% 46.659 24.74% 714 0 38% 3.567 1 89% 62 0.03% 956 0.51% 14.858 7 88% 71.941 38,15% 41.95% 90,624 42.57% 1,244 0.58% 20,422 9.59% 102 0.05% 1,224 0.57% 4,656 2.19% 123,563 58.05% 74.71% 29.158 13.58% 1.045 0 49% 4.717 2.20% 84 0.04% 923 0.43% 10,702 4.98% 54,311 25.29% 77 944 65.09% 38,069 18.56% 956 18,396 8.97% 0.04% 0.46% 7,015 3.42% 71,600 34.91% 0.47% 48.95% 81,467 39.60% 1,074 0.52% 11,591 5.63% 61 0.03% 1,144 0.56% 5,356 2.60% 105,015 51.05% 40.54% 94,299 45.33% 1,138 0.55% 10,045 4.83% 114 0.05% 1,328 0.64% 12,903 6.20% 123,686 59.46% 84,222 110 1,054 99,257 52.04% 40.69% 899 0.43% 4,032 1.95% 0.05% 0.51% 4,714 2.28% 47.96% 73.16% 8.989 4.36% 363 0 18% 33,639 16.30% 64 0.03% 697 0.34% 6.556 3.18% 55,409 26 84% 73 50.14% 84,593 40.82% 992 0.48% 8,383 4.05% 0.04% 895 0.43% 3,945 1.90% 103,317 49.86% 39,721 721 4,940 79 706 4,862 57,167 72.05% 19.42% 0.35% 2.42% 0.04% 0.35% 2.38% 27.95% 737 81.01% 24,307 11.69% 724 0.35% 2,806 1.35% 58 0.03% 0.35% 4,870 2.34% 39,473 18.99% 73.47% 17,773 8.34% 403 0.19% 26,673 12.51% 79 0.04% 927 0.43% 5,903 2.77% 56,566 26.53% 80.82% 13,306 711 11,808 121 0.06% 832 7,345 3.37% 41,856 19.18% 6.10% 0.33% 5.41% 0.38% 30,022 845 18,117 218 1,366 11,777 68.01% 13.57% 0.38% 8.19% 0.10% 0.62% 5.32% 70,794 31.99% 88.39% 5.172 2.42% 736 0.34% 1.248 0.58% 50 0.02% 584 0.27% 9.529 4.46% 24.809 11.61% 108 85.38% 9,259 4.43% 1,088 0.52% 2,224 1.06% 0.05% 737 0.35% 9,861 4.72% 30,558 14.62% 85.77% 9,776 4.76% 1,030 3,282 1.60% 53 703 7,438 3.62% 29,221 0.50% 0.03% 0.34% 14.23% 21,688 984 88 1,092 47,614 77.49% 10.25% 5,865 2.77% 0.04% 10,143 4.80% 0.47% 0.52% 22.51% 78.64% 16,956 8.47% 1,179 0.59% 3,995 1.99% 99 0.05% 733 0.37% 13,485 6.73% 42,774 21.36% 73.70% 23,580 11.48% 1.089 0.53% 5.784 2.82% 104 0.05% 935 0.46% 15,157 7.38% 54.031 26.30% 129 92.17% 1,412 617 1,760 587 4,852 16,001 7.83% 0.69% 0.30% 0.86% 0.06% 0.29% 2.37% 85.65% 7.662 3.62% 633 0.30% 5.645 2.66% 70 0.03% 730 0.34% 8.591 4.05% 30.400 14.35% 3,579 396 5,038 50 546 6,584 22,213 10.94% 89.06% 1.76% 0.20% 2.48% 0.02% 0.27% 3.24% 62 90.82% 4.670 2.23% 731 0.35% 1,001 0.48% 0.03% 490 0.23% 6,157 2.94% 19,196 9.18% 6.585 792 949 55 493 23.778 88.51% 3.18% 0.38% 0.46% 0.03% 0.24% 7.667 3.71% 11.49%

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3.66%

4.38%

15.50%

6.18%

9.22%

4.92%

4.33%

3.01%

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74,087

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37.00%

18.57%

39.43%

17.48%

16.68%

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11.35%

10.67%

23.07%

6.21%

10.70%

10 48%

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1,620

1.38%

5.33%

4.70%

2.35%

2.95%

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0.76%

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VAPTOT

201.593

188.578

212,874

214,717

205,113

205,711

208,010

206,961

206,406

207,211

204,523

207,870

213,186

218,191

221,289

213.755

209,069

205,401

211,508

200,292

205.416

204,483

211.880

203,066

209.073

206.886

200,250

210,771

200,247

212,420

200,843

205,945

207,138

213,991

211.487

220,106

213,146

217,404

PercentTot

97.37%

97 28%

97.51%

96.42%

97.01%

97.90%

98.14%

97.96%

97.53%

97.86%

97.00%

97.13%

97.74%

96.46%

96.18%

96.50%

96.52%

96.62%

96.33%

96.84%

96.41%

96.75%

96.66%

97.04%

97.09%

96.50%

96.77%

96.83%

97.32%

97.01%

97.51%

96.57%

97.11%

96.87%

97.06%

96.92%

96.21%

96.53%

86.453

116.637

89,311

160,406

133,513

100,696

84,324

107,704

150,997

103,894

147,356

168,397

156,620

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150,495

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178,511

176,180

163,894

157,518

151.385

188,482

181,480

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189,877

183,108

126,163

171.634

121,293

175,285

167,340

166.764

183,636

191,160

162.696

206,448

190,341

194,624

63.00%

81.43%

60.57%

82.52%

83.32%

80.98%

88.65%

89.33%

76.93%

93.79%

89.30%

89.52%

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18,334

6,250

5,096

24.146

730

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4,203

27.63%

4.92%

15.63%

5.19%

1.45%

8.90%

3.02%

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1 93%

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1,820

810

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5,671

0.63%

0.33%

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3.18%

2.61%

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	Г	Performan	ce Index				President (20	20 & 2012)							Senate (20	020 & 2018)				6	Governor (	2018)		Se	cretary of St	ate (2014)	
DIST	RICT	Dem	Rep	Biden (m) Bi	iden (m) % Ti	rump T	rump % Ot	bama (m) Ol	bama (m) % Ror	mney Ron	mney % P	eters20 Pe	ters20 % Ja	ames20 (m) Ja	mes20 (m) % Sta	abenow18 St	abenow18 % Ja	mes18 (m) Jan	nes18 (m) % 🕅	(hitmer (m) V	Vhitmer (m) % So	chuette S	chuette %	Dillard (m) Di	llard (m) % J	ohnson Jo	hnson %
1	1	72.91%	27.09%	75,689	69.60%	33,052	30.40%	87,046	80.22% 2		19.78%	74,334	70.46%	31,159	29.54%	50,404	71.30%	20,288	28.70%	51,485	73.05%	18,996	26.95%	42,877	71.74%	16,888	28.26%
	2	73.78%	26.22%	73,063		25,414	25.81%	70,302		22,449	24.20%	71,680	75.19%	23,656	24.81%	49,767	74.86%	16,710		50,212	75.66%	16,149	24.34%	32,770	62.99%	19,253	37.01%
3		79.76% 55.16%	20.24%	88,943 73,678	78.65% 51.79%	24,138 68,592	21.35% 48.21%	90,342 72,739		16,864 47,695	15.73% 39.60%	86,971 72,750	79.04% 52.39%	23,070 66,116	20.96% 47.61%	56,533 63,791	78.52% 56.89%	15,461 48,345	21.48% 43.11%	57,800 65,498	80.22% 58.87%	14,249 45,760	19.78% 41.13%	47,713 38,798	76.23% 50.30%	14,879 38,331	23.77% 49.70%
	-	60.20%	39.80%	82,347	60.58%	53,593	39.42%	73,024		45,685	38.48%	80,627	60.60%	52,417	39.40%	64,703	61.84%	39,934		66,152	63.57%	37,904	36.43%	35,690	49.38%	36,583	50.62%
	6	67.80%	32.20%	91,683	69.65%	39,956	30.35%	91,198		41,472	31.26%	90,398	70.17%	38,420	29.83%	70,530	67.56%	33,863		72,098	69.30%	31,935	30.70%	48,955	58.26%	35,080	41.74%
	7	72.31%	27.69%	106,307	74.48%	36,422	25.52%	97,731	73.11% 3	35,954	26.89%	103,258	73.08%	38,035	26.92%	80,270	72.84%	29,936	27.16%	81,626	74.30%	28,233	25.70%	55,624	63.19%	32,404	36.81%
8	В	75.16%	24.84%	119,715	78.08%	33,605	21.92%	109,382		34,163	23.80%	115,422	76.13%	36,181	23.87%	85,408	74.91%	28,601	25.09%	87,530	76.99%	26,167	23.01%	60,279	65.15%	32,244	34.85%
1	-	47.57% 67.15%	52.43% 32.85%	72,951 82,661	50.27% 65.17%	72,155	49.73% 34.83%	56,918 89,664		65,652 33,258	53.56% 27.06%	70,273 81,894	49.04% 66.24%	73,016 41,738	50.96% 33.76%	55,416 56,829	50.71% 66.42%	53,863 28,737	49.29% 33.58%	56,097 57,583	51.65% 67.62%	52,516 27,576	48.35% 32.38%	25,253 44,130	31.84% 62.57%	54,071 26,402	68.16% 37.43%
1		53.32%	46.68%	73,345	51.22%	44,178 69,857	54.85% 48.78%	67,482		50,776	42.94%	73,134	52.29%	66,732	47.71%	57,055	55.49%	45,772	44.51%	57,780	56.51%	44,468	43.49%	33,132	45.75%	39,282	54.25%
1		48.69%	51.31%	75,957	47.79%	82,989	52.21%	67,770		54,494	48.76%	74,858	47.92%	81,345	52.08%	62,880	51.37%	59,537	48.63%	63,866	52.61%	57,523	47.39%	33,652	38.65%	53,410	61.35%
1	.3	53.49%	46.51%	96,592	57.29%	72,010	42.71%	71,708	50.47% 7	70,385	49.53%	92,429	55.18%	75,064	44.82%	75,273	56.81%	57,223	43.19%	76,465	58.02%	55,335	41.98%	35,805	37.47%	59,755	62.53%
1		54.87%	45.13%	82,982	55.32%	67,023	44.68%	70,675		57,085	44.68%	81,199	54.93%	66,622	45.07%	67,463	56.96%	50,982	43.04%	68,770	58.51%	48,771	41.49%	38,339	45.29%	46,307	54.71%
1		70.65%	29.35%	109,873	73.74%	39,118	26.26%	86,035		38,320	30.82%	105,346	71.53%	41,934	28.47%	85,365	72.41%	32,521	27.59%	86,619	73.92%	30,553	26.08%	44,917	57.82%	32,772	42.18%
1		41.02% 37.99%	58.98% 62.01%	53,283 46,768	36.73% 35.87%	91,766	63.27%	59,131 48,467		52,586	51.42% 56.31%	52,437 44,924	37.06%	89,060	62.94%	43,622 36,623	42.07%	60,072	57.93%	44,863	43.61%	58,002 56,347	56.39%	28,824 22,395	39.43% 34.36%	44,270	60.57% 65.64%
1		40.03%	59.97%	46,768 54,812	35.87%	83,620 85,834	64.13% 61.03%	48,467 51,643		52,459 56,003	56.10%	44,924 52,441	35.14% 37.77%	82,914 86,414	64.86% 62.23%	43,743	38.69% 41.16%	58,043 62,521	61.31% 58.84%	37,439 45,337	39.92% 43.14%	59,764	60.08% 56.86%	22,595	34.30%	42,786 49,296	65.83%
1		56.69%	43.31%	86,336	59.23%	59,426	40.77%	71,267		54,351	43.27%	81,217	56.31%	63,007	43.69%	67,574	58.47%	47,987	41.53%	69,027	60.13%	45,760	39.87%	34,942	44.88%	42,918	55.12%
2		41.15%	58.85%	59,124	42.44%	80,198	57.56%	50,440		56,250	56.77%	55,280	40.07%	82,681	59.93%	43,847	41.77%	61,121	58.23%	45,200	43.38%	58,986	56.62%	24,217	33.31%	48,494	66.69%
2	1	58.19%	41.81%	82,810	58.01%	59,953	41.99%	72,414	59.11% 5	50,102	40.89%	82,500	58.44%	58,669	41.56%	67,624	59.92%	45,230	40.08%	69,523	62.21%	42,229	37.79%	41,046	49.04%	42,647	50.96%
2		38.34%	61.66%	63,753		101,674	61.46%	51,694		77,834	60.09%	61,731	37.73%	101,864	62.27%	49,552	39.69%	75,292	60.31%	52,073	41.98%	71,955	58.02%	25,627	29.61%	60,921	70.39%
2		41.84%	58.16%	70,230		92,031	56.72%	55,088		74,261	57.41%	67,772	42.31%	92,409	57.69%	54,419	44.00%	69,264	56.00%	56,359	45.97%	66,229	54.03%	23,554	27.91%	60,848	72.09%
2		36.31% 37.77%	63.69% 62.23%	58,364 47,440		103,975 97,411	64.05% 67.25%	49,142 53,631		77,708 55,999	61.26% 55.17%	57,206 48,944	35.74% 34.61%	102,874 92,466	64.26% 65.39%	46,718 42,575	38.29% 40.06%	75,297 63,698	61.71% 59.94%	48,200 42,539	39.87% 40.63%	72,701 62,165	60.13% 59.37%	22,335 27,612	26.44% 35.04%	62,129 51,193	73.56% 64.96%
2		43.76%	56.24%	56,871		91,858	61.76%	66,463		54,218	49.14%	58,929	40.26%	87,425	59.74%	49,902	44.24%	62,886	55.76%	51,768	46.31%	60,013	53.69%	37,743	44.57%	46,938	55.43%
2		65.31%	34.69%	82,648	62.22%	50,194	37.78%	89,363		38,574	30.15%	82,762	63.22%	48,141	36.78%	65,271	64.87%	35,347	35.13%	67,447	67.36%	32,679	32.64%	50,383	64.55%	27,666	35.45%
2	8	55.43%	44.57%	76,808	55.67%	61,172	44.33%	68,391	56.15% 5	53,399	43.85%	75,374	54.97%	61,754	45.03%	64,325	57.34%	47,864	42.66%	67,182	60.30%	44,236	39.70%	37,155	45.47%	44,556	54.53%
2		59.03%	40.97%	80,310	64.07%	45,046	35.93%	59,569		46,949	44.08%	75,638	60.73%	48,900	39.27%	57,758	60.18%	38,214	39.82%	59,597	62.39%	35,927	37.61%	26,854	43.65%	34,661	56.35%
3		47.24%	52.76%	78,341	51.92%	72,557	48.08%	53,228		58,799	56.38%	72,693	48.33%	77,703	51.67%	58,148	49.01%	60,492	50.99%	60,145	51.03%	57,716	48.97%	25,273	33.06%	51,173	66.94%
3		35.46%	64.54%	60,662	39.98%	91,077	60.02%	40,377		32,594	67.17%	55,152	36.44%	96,201	63.56%	43,030	36.65%	74,391	63.35%	44,728	38.37%	71,839	61.63%	18,800	23.26%	62,029	76.74%
3		49.61% 35.78%	50.39% 64.22%	66,844 45,866	47.42% 32.96%	74,114 93,308	52.58% 67.04%	65,073 45,385		52,363 54,509	44.59% 58.70%	64,812 44,437	46.74% 32.45%	73,852 92,482	53.26% 67.55%	53,700 38,337	50.47% 37.63%	52,700 63,554	49.53% 62.37%	55,194 39,492	52.02% 39.09%	50,913 61,542	47.98% 60.91%	33,615 22,292	45.30% 31.78%	40,589 47,849	54.70% 68.22%
3		40.39%	59.61%	45,866 48,119	32.96%	95,508 86,132	64.16%	45,585 53,539		54,509 59,733	52.73%	44,437 48,856	36.86%	92,482 83,682	63.14%	41,792	41.49%	58,944	58.51%	42,654	42.69%	57,256	57.31%	22,292 29,074	39.85%	47,849	60.15%
3		52.60%	47.40%	75,511	51.65%	70,690	48.35%	73,878		60,657	45.09%	75,272	51.96%	69,587	48.04%	59,942	52.90%	53,368	47.10%	61,623	54.64%	51,159	45.36%	42,624	48.64%	45,009	51.36%
3	6	37.01%	62.99%	50,789		106,743	67.76%	59,174	44.22% 7	74,658	55.78%	52,654	33.81%	103,097	66.19%	45,679	37.59%	75,856	62.41%	46,311	38.48%	74,031	61.52%	32,836	37.50%	54,734	62.50%
3		43.39%	56.61%	72,636	44.22%	91,643	55.78%	59,069		76,339	56.38%	69,989	42.72%	93,838	57.28%	59,428	44.96%	72,761	55.04%	60,485	46.16%	70,555	53.84%	33,798	36.57%	58,615	63.43%
3	8	45.21%	54.79%	60,897	42.01%	84,050	57.99%	61,160	48.60% 6	64,686	51.40%	61,797	43.00%	81,930	57.00%	52,967	46.97%	59,794	53.03%	53,213	47.51%	58,795	52.49%	36,281	44.02%	46,133	55.98%

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ISTRICT	All Persons 7	Total Pop Torget		Difference	Racial De NH White		cs as Percent NH Asian		Dinority	Voting Age Po	pulation	Racial D NH White	emographic NH Black	s as Percent o NH Asian	of Voting Pop Hispanic	ulation Minor
1	91,856	91,612		244	16.79%	35.26%	0.33%	43.92%	83.21%	65,520	71.3%	18.67%	38.03%	0.38%	39.49%	81.33
2 3	89,622	91,612	-2.17%√	-1,990	63.27%	11.54%	1.13%	18.58%	36.73%	69,719	77.8%	67.61%	11.04%	1.21%	15.61%	
4	93,531 90,903	91,612 91,612	2.09%√ -0.77%√	1,919 -709	51.18% 41.08%	33.31% 52.65%	2.34% 0.47%	8.21% 1.72%	48.82% 58.92%	66,030 64,833	70.6% 71.3%	52.34% 38.61%	32.82% 55.60%	2.77%	7.64%	
5	92,744	91,612	1.24%√	1,132	36.68%	55.87%	1.53%	1.96%	63.32%	71,629	77.2%	38.11%	55.31%	1.55%	1.70%	
6 7	93,629 92,948	91,612 91,612	2.20%√ 1.46%√	2,017	36.10%	56.66% 46.93%	1.15%	2.03%	63.90% 55.72%	73,324 75,856	78.3% 81.6%	38.54%	54.93% 44.29%	1.31%	1.79%	
8	92,670	91,612	1.15%√	1,058	41.68%	45.73%	4.16%	2.96%	58.32%	76,299	82.3%	44.50%	43.70%	4.57%	2.61%	
9	90,818	91,612	-0.87%√	-794	28.46%	50.05%	15.19%	1.57%	71.54%	66,200	72.9%	28.03%	51.65%	14.68%	1.48%	
10 11	90,534 91,145	91,612 91,612	-1.18%√ -0.51%√	-1,078 -467	53.11%	38.14% 46.82%	2.08%	2.77%	46.89%	74,475 70,700	82.3% 77.6%	53.31% 51.18%	38.79% 42.82%	2.32%	2.35%	
12	90,630	91,612	-1.07%√	-982	45.97%	44.46%	1.33%	2.45%	54.03%	68,955	76.1%	51.03%	40.99%	1.28%	2.08%	
13 14	90,393	91,612 91,612	-1.33%√ -1.15%√	-1,219 -1,057	47.56% 38.99%	41.39% 43.39%	4.11% 10.11%	2.17% 2.45%	52.44% 61.01%	69,812	77.2% 76.4%	52.03% 43.17%	38.36% 41.11%	3.91% 9.31%	1.89% 2.14%	
14	90,555 92,301	91,612	0.75%√	-1,057	80.88%	43.39%	1.72%	5.23%	19.12%	69,140 69,652	75.5%	43.17%	7.18%	9.31%	4.70%	
16	93,035	91,612	1.55%√	1,423	34.88%	56.88%	0.94%	2.87%	65.12%	72,066	77.5%	38.03%	54.92%	1.02%	2.44%	
17 18	90,737	91,612 91,612	-0.96%√ 0.61%√	-875 557	45.56%	44.57%	1.80% 4.21%	3.10% 2.71%	54.44% 63.50%	71,354	78.6% 82.1%	48.90% 37.44%	42.43%	1.94%	2.64%	
19	92,169 90,931	91,612	-0.74%√	-681	36.50%	52.03% 24.62%	4.21%	2.71%	39.37%	75,714 72,930	80.2%	61.39%	52.16% 25.11%	4.12% 8.00%	2.40%	
20	93,017	91,612	1.53%√	1,405	75.60%	10.28%	7.26%	2.68%	24.40%	74,684	80.3%	76.81%	10.20%	7.42%	2.25%	
21 22	93,876 91,654	91,612 91,612	2.47%√ 0.05%√	2,264	57.07% 85.05%	7.60% 2.23%	27.76% 5.67%	3.48% 3.19%	42.93% 14.95%	71,599 75,487	76.3% 82.4%	59.96% 86.64%	7.89%	26.00% 5.33%	3.07%	
23	90,719	91,612	-0.97%√	-893	70.61%	4.68%	14.87%	4.41%	29.39%	76,266	84.1%	71.65%	4.78%	14.75%	4.14%	
24	91,480	91,612	- <b>0</b> .14%√	-132	61.18%	10.03%	20.19%	3.69%	38.82%	69,996	76.5%	63.53%	9.84%	19.60%	3.29%	
25 26	90,562	91,612 91,612	-1.15%√ 0.12%√	-1,050	64.13% 50.52%	20.53% 37.86%	4.87%	4.47% 4.20%	35.87% 49.48%	73,216	80.8% 77.1%	66.72%	19.62%	4.96%	3.82% 3.61%	
27	91,723 90,457	91,612	-1.26%√	-1,155	84.33%	3.05%	1.18%	6.36%	15.67%	70,678 73,737	81.5%	54.11% 86.29%	35.82% 2.93%	1.14%	5.34%	
28	91,598	91,612	-0.02%√	-14	74.98%	9.75%	3.36%	6.24%	25.02%	71,385	77.9%	77.44%	9.14%	3.23%	5.36%	
29 30	92,583 93,460	91,612 91.612	1.06%√ 2.02%√	971 1.848	72.48%	13.37% 2.57%	1.38%	6.68% 4.06%	27.52%	72,381 73,606	78.2% 78.8%	76.05%	11.83% 2.30%	1.40% 0.67%	5.62% 3.21%	
31	92,978	91,612	1.49%√	1,366	72.74%	16.00%	1.27%	4.03%	27.26%	73,558	79.1%	74.55%	15.72%	1.28%	3.54%	
32	92,092	91,612	0.52%√	480	53.20%	28.29%	3.69%	7.17%	46.80%	73,449	79.8%	57.13%	26.46%	3.89%	6.21%	
33 34	92,730 92,371	91,612 91,612	1.22%√ 0.83%√	1,118 759	68.50% 83.11%	7.94% 2.61%	11.52% 0.48%	5.90% 8.88%	31.50% 16.89%	74,822 73,142	80.7% 79.2%	70.65%	7.76% 2.88%	11.65% 0.49%	5.23% 7.27%	
35	93,023	91,612	1.54%√	1,411	89.55%	1.44%	0.48%	4.20%	10.45%	71,335	76.7%	90.73%	1.66%	0.49%	3.29%	
36	89,634	91,612	-2.16%√	-1,978	84.12%	2.73%	0.69%	7.00%	15.88%	68,621	76.6%	86.65%	2.74%	0.72%	5.44%	
37 38	91,456 93,422	91,612 91,612	-0.17%√ 1.98%√	-156 1,810	78.38% 67.57%	6.26% 19.03%	1.89% 1.75%	6.54% 6.63%	21.62% 32.43%	71,787 73,770	78.5% 79.0%	81.10% 72.12%	6.19% 16.97%	2.00%	5.18% 5.18%	
39	90,270	91,612	-1.46%√	-1,342	81.17%	1.69%	0.44%	10.74%	18.83%	69,482	77.0%	84.59%	1.69%	0.45%	8.20%	
40 41	90,211 91,872	91,612 91,612	-1.53%√ 0.28%√	-1,401 260	77.97% 59.50%	7.16% 21.99%	4.56% 2.17%	4.57% 8.66%	22.03% 40.50%	69,763 72,876	77.3% 79.3%	80.75% 64.54%	6.74% 19.61%	4.45% 2.54%	3.86% 7.40%	
42	91,872	91,612	-0.46%√	-420	86.29%	3.44%	1.09%	3.41%	40.30%	70,454	75.3%	88.31%	3.13%	1.11%	2.69%	
43	92,518	91,612	0.99%√	906	88.43%	0.80%	0.52%	5.52%	11.57%	70,016	75.7%	90.34%	0.65%	0.51%	4.58%	
44 45	89,974 90,612	91,612 91,612	-1.79%√ -1.09%√	-1,638 -1,000	67.40% 90.40%	15.11% 1.29%	3.76% 0.55%	6.67% 3.08%	32.60% 9.60%	68,782 71,054	76.4% 78.4%	71.48% 92.00%	14.34% 1.14%	3.39% 0.54%	5.53% 2.48%	
45 46	90,012	91,612	-1.09%√ -0.62%√	-1,000	75.41%	12.23%	1.26%	4.62%	24.59%	71,551	78.6%	78.41%	12.17%	1.26%	3.54%	
47	91,302	91,612	-0.34%√	-310	82.97%	3.10%	3.93%	4.17%	17.03%	73,378	80.4%	84.80%	3.07%	4.17%	3.43%	
48 49	92,373 93,247	91,612 91,612	0.83%√ 1.78%√	761 1,635	83.36% 81.32%	1.79% 5.78%	6.90% 4.20%	3.00% 4.03%	16.64% 18.68%	74,656 74,267	80.8% 79.6%	84.30% 82.78%	1.79% 5.82%	7.25%	2.56% 3.38%	
49 50	93,247	91,612	1.67%√	1,533	91.14%	0.44%	4.20%	4.03%	8.86%	72,160	75.6%	92.28%	0.44%	0.77%	2.54%	
51	91,507	91,612	-0.11%√	-105	89.00%	1.30%	1.29%	3.41%	11.00%	72,488	79.2%	90.44%	1.25%	1.35%	2.70%	
52 53	91,098 93,056	91,612 91,612	-0.56%√ 1.58%√	-514 1,444	84.95% 40.81%	2.75% 33.94%	1.63%	5.77% 17.60%	15.05% 59.19%	72,818 71,476	79.9% 76.8%	86.85% 46.05%	2.66% 32.59%	1.63%	4.81% 14.72%	
54	92,949	91,612	1.46%√	1,337	73.66%	6.77%	9.52%	5.16%	26.34%	73,853	79.5%	75.32%	6.95%	9.54%	4.33%	
55	91,805	91,612	0.21%√	193	73.68%	3.41%	13.74%	4.69%	26.32%	71,848	78.3%	75.98%	3.51%	13.12%	3.98%	
56 57	90,410 89,693	91,612 91,612	-1.31%√ -2.09%√	-1,202	67.73% 74.61%	3.39% 5.19%	21.41%	3.38%	32.27%	71,737 71,864	79.3% 80.1%	70.93%	3.44%	19.61% 13.48%	2.94%	
58	90,454	91,612	-1.26%√	-1,158	78.17%	8.23%	6.25%	2.72%	21.83%	73,423	81.2%	79.90%	7.86%	6.07%	2.41%	
59	89,336	91,612	-2.48%√	-2,276	86.97%	2.68%	3.69%	2.91%	13.03%	70,271	78.7%	88.36%	2.58%	3.58%	2.50%	
60 61	92,742 93,156	91,612 91,612	1.23%√ 1.69%√	1,130	81.65%	7.23%	3.47%	3.23%	18.35% 26.17%	72,453 75,006	78.1% 80.5%	83.34%	7.08%	3.47%	2.69%	
62	90,539	91,612	-1.17%√	-1,073	77.07%	13.35%	1.44%	2.83%	22.93%	74,114	81.9%	79.79%	12.07%	1.47%	2.35%	
63	90,638	91,612	-1.06%√	-974	88.69%	3.12%	0.74%	2.65%	11.31%	72,589	80.1%	90.27%	2.86%	0.79%	2.13%	
64 65	91,060 92,892	91,612 91,612	-0.60%√ 1.40%√	-552 1,280	85.90%	3.78% 2.29%	0.61%	4.08%	14.10%	71,638 73,184	78.7% 78.8%	88.31% 89.40%	3.56%	0.65%	3.30%	
66	93,014	91,612	1.53%√	1,402	88.17%	1.18%	1.61%	4.41%	11.83%	71,767	77.2%	89.95%	1.10%	1.61%	3.59%	
67	92,816	91,612	1.31%√	1,204	87.35%	3.28%	0.42%	3.56%	12.65%	73,721	79.4%	88.89%	3.28%	0.41%	2.70%	
68 69	93,065 91,698	91,612 91,612	1.59%√ 0.09%√	1,453	82.34% 68.76%	6.24% 21.07%	1.74%	4.12%	17.66% 31.24%	73,273 71,476	78.7% 77.9%	84.24%	6.00% 19.84%	1.78%	3.37%	
70	90,738	91,612	-0.95%√	-874	36.26%	51.87%	0.51%	4.87%	63.74%	68,117	75.1%	39.89%	50.13%	0.59%	4.37%	
71	91,966	91,612	0.39%√	354	91.17%	0.69%	0.43%	3.06%	8.83%	72,963	79.3%	92.41%	0.64%	0.42%	2.51%	
72 73	92,844 91,543	91,612 91,612	1.34%√ -0.08%√	1,232	85.21%	4.89% 5.83%	1.27%	3.55% 4.34%	14.79% 22.29%	72,890 75,397	78.5% 82.4%	86.72% 78.57%	4.79% 6.50%	1.31%	2.88%	
74	90,782	91,612	-0.91%√	-830	58.79%	18.25%	4.34%	11.02%	41.21%	70,233	77.4%	63.43%	17.05%	4.27%	9.39%	
75 76	93,554	91,612	2.12%√	1,942	79.32%	4.35%	5.90%	5.12%	20.68%	75,207	80.4%	81.08%	4.26%	6.12%	4.27%	
76 77	92,354 92,594	91,612 91,612	0.81%√ 1.07%√	742 982	78.11%	7.92% 11.08%	2.58%	6.26% 10.61%	21.89% 30.51%	73,043 72,106	79.1% 77.9%	80.63% 73.16%	7.67%	2.44%	5.18% 9.15%	
78	92,264	91,612	0.71%√	652	87.59%	3.62%	0.42%	4.31%	12.41%	71,687	77.7%	88.34%	4.48%	0.43%	3.47%	
79 80	90,952	91,612	-0.72%√	-660	82.38%	4.41%	3.55%	5.05%	17.62%	67,213	73.9%	84.66%	4.13%	3.49%	4.15%	
80 81	92,350 91,516	91,612 91,612	0.81%√ -0.10%√	738 -96	67.22% 78.37%	12.08% 7.75%	8.14% 3.19%	7.64% 5.49%	32.78% 21.63%	69,344 71,975	75.1% 78.6%	70.96% 81.42%	11.28% 7.03%	7.94%	6.32% 4.63%	
82	91,219	91,612	-0.43%√	-393	49.92%	26.76%	3.33%	14.62%	50.08%	70,814	77.6%	55.75%	24.58%	3.37%	12.03%	
83 84	91,341	91,612 91,612	-0.30%√ 0.30%√	-271 278	51.58% 75.14%	9.19% 6.21%	2.73%	31.56% 11.25%	48.42% 24.86%	67,461 73,379	73.9% 79.9%	57.46% 79.03%	8.69% 5.36%	2.98% 1.91%	26.96% 9.31%	
84 85	91,890 90,127	91,612	0.30%√	-1,485	87.14%	6.21% 1.21%	1.83%	5.70%	12.86%	66,158	79.9%	89.34%	1.11%	2.16%	9.31% 4.64%	
86	90,575	91,612	-1.13%√	-1,037	66.02%	2.62%	5.08%	22.19%	33.98%	70,221	77.5%	70.69%	2.33%	5.13%	18.69%	
87 88	91,376 90,900	91,612 91.612	-0.26%√ -0.78%√	-236 -712	61.91% 87.81%	24.21% 1.47%	0.50%	6.83% 4.62%	38.09% 12.19%	70,829	77.5% 78.2%	65.83% 89.90%	22.94% 1.37%	0.53%	5.55% 3.68%	
89 89	93,134	91,612	-0.78%√	1,522	86.99%	1.47%	0.82%	4.62%	13.01%	71,051	78.2%	88.55%	2.04%	0.89%	4.58%	
90	91,549	91,612	-0.07%√	-63	87.20%	1.60%	0.91%	5.69%	12.80%	68,467	74.8%	89.55%	1.47%	0.89%	4.50%	
91 92	91,350 92,520	91,612 91.612	-0.29%√ 0.99%√	-262 908	90.75% 81.45%	0.53% 4.58%	0.38%	3.79% 5.84%	9.25% 18.55%	70,036	76.7% 79.9%	92.31% 82.92%	0.44% 5.11%	0.38%	3.02%	
92 93	92,520	91,612	-2.40%√	-2,202	81.45%	4.58%	1.37%	5.84%	13.53%	73,959	80.7%	87.40%	4.20%	1.41%	4.77%	
94	90,438	91,612	-1.28%√	-1,174	46.40%	33.75%	1.24%	13.25%	53.60%	69,020	76.3%	51.34%	31.92%	1.29%	11.32%	
95 96	91,439 90,544	91,612 91.612	-0.19%√ -1.17%√	-173 -1.068	88.86% 86.81%	1.05% 1.69%	1.89%	3.11% 6.14%	11.14% 13.19%	71,873 72,724	78.6% 80.3%	90.46% 89.24%	1.01% 1.54%	1.85% 0.58%	2.48% 4.84%	
96 97	90,544 93,159	91,612 91,612	-1.17%√ 1.69%√	-1,068 1,547	86.81%	1.69% 2.28%	0.55%	6.14% 4.03%	13.19%	72,724 73,355	80.3% 78.7%	89.24% 90.17%	1.54% 2.33%	0.58%	4.84% 3.30%	
98	92,049	91,612	0.48%√	437	92.62%	0.32%	0.29%	3.35%	7.38%	72,801	79.1%	93.77%	0.31%	0.29%	2.76%	
99 100	89,375 91,751	91,612 91.612	-2.44%√ 0.15%√	-2,237 139	92.86% 91.21%	0.38%	0.35%	2.09% 2.19%	7.14% 8.79%	72,792 72.641	81.4% 79.2%	93.81% 92.09%	0.34%	0.36%	1.64% 1.89%	
LOU LO1	91,751 92,604	91,612	0.15%√	992	91.21%	1.17%	0.45%	2.19% 5.48%	8.79%	72,641 72,534	79.2%	88.89%	1.15%	0.50%	1.89% 4.81%	
102	91,886	91,612	0.30%√	274	85.43%	1.22%	0.40%	7.30%	14.57%	72,924	79.4%	87.83%	1.25%	0.40%	5.68%	
103 104	93,426	91,612	1.98%√ -2.34%√	1,814	89.71% 91.28%	0.53%	0.79%	3.36%	10.29% 8.72%	76,458	81.8%	91.48%	0.46%	0.73%	2.69%	
104 105	89,466 89,541	91,612 91,612	-2.34%√ -2.26%√	-2,146 -2,071	91.28%	0.35%	0.44%	2.58% 2.12%	8.72% 7.33%	71,871 72,736	80.3% 81.2%	92.68% 93.86%	0.30%	0.46%	1.96% 1.56%	
106	90,875	91,612	-0.80%√	-737	92.66%	0.27%	0.31%	1.34%	7.34%	75,466	83.0%	93.74%	0.22%	0.32%	1.05%	
107 108	92,701 89,366	91,612 91.612	1.19%√ -2.45%√	1,089	83.30% 85.05%	1.24% 2.21%	0.52%	1.77% 1.69%	16.70% 14.95%	75,875	81.8% 81.1%	85.31% 87.00%	1.39% 2.62%	0.48%	1.42% 1.25%	
108	89,366	91,612	-2.45%√ -2.40%√	-2,246	85.05%	2.21%	0.34%	1.69%	14.95%	72,443	81.1% 81.9%	87.00%	2.52%	0.36%	1.25%	
110	90,788	91,612		-824	91.64%	0.48%	1.19%	1.70%	8.36%	74,036	81.5%	92.71%	0.46%	1.25%	1.41%	
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{	91,856	100.00%	21,598	23.51%	33,083	36.02% 11.85%	1,509	1.64%	326	0.35%	30	0.03%	23,847	25.96%	11,463	12.48%	70,258	76.4
$\sim f$	89,622 93,531	100.00% 100.00%	60,517 49,222	67.52% 52.63%	10,620 31,495	11.85% 33.67%	664 423	0.74% 0.45%	1,051 2,200	1.17% 2.35%	43 20	0.05%	7,167 3,961	8.00% 4.23%	9,560 6,210	10.67% 6.64%	29,105 44,309	32.4 47.3
1	90,903	100.00%	37,645	41.41%	48,141	52.96%	146	0.16%	437	0.48%	15	0.02%	979	1.08%	3,540	3.89%	53,258	58.
4	92,744	100.00%	34,411	37.10%	52,066	56.14%	200	0.22%	1,430	1.54%	24	0.03%	739	0.80%	3,874	4.18%	58,333	62.
-}	93,629 92,948	100.00% 100.00%	34,222 41,874	36.55% 45.05%	53,368 43,883	57.00% 47.21%	168 217	0.18% 0.23%	1,088 1,427	1.16% 1.54%	16 29	0.02%	734 841	0.78%	4,033 4,677	4.31% 5.03%	59,407 51,074	63 54
t	92,670	100.00%	39,378	42.49%	42,671	46.05%	317	0.34%	3,875	4.18%	21	0.02%	1,042	1.12%	5,366	5.79%	53,292	57.
}	90,818	100.00%	26,201	28.85%	45,733	50.36%	216	0.24%	13,836	15.23%	21	0.02%	720	0.79%	4,091	4.50%	64,617	71
}	90,534 91.145	100.00%	48,702 42,553	53.79% 46.69%	34,747 42.947	38.38% 47.12%	191 196	0.21%	1,892 752	2.09% 0.83%	27 17	0.03%	741 621	0.82%	4,234 4,059	4.68% 4.45%	41,832 48,592	46 53
1	90,630	100.00%	42,255	46.62%	40,580	44.78%	273	0.30%	1,228	1.35%	25	0.03%	854	0.94%	5,415	5.97%	48,375	53
	90,393	100.00%	43,517	48.14%	37,663	41.67%	245	0.27%	3,732	4.13%	21	0.02%	732	0.81%	4,483	4.96%	46,876	51
	90,555 92,301	100.00%	35,885 76,059	39.63% 82.40%	39,554	43.68% 7.64%	297 282	0.33%	9,182 1,599	10.14%	24 23	0.03%	1,005 1,531	1.11% 1.66%	4,608 5,759	5.09% 6.24%	54,670 16,242	60 17
	93,035	100.00% 100.00%	33,035	35.51%	7,048 53,253	7.64% 57.24%	271	0.31% 0.29%	885	1.73% 0.95%	14	0.02%	1,014	1.09%	4,563	6.24% 4.90%	16,242 60,000	17 64
	90,737	100.00%	42,052	46.34%	40,724	44.88%	266	0.29%	1,642	1.81%	13	0.01%	1,093	1.20%	4,947	5.45%	48,685	53
<u>{</u>	92,169 90,931	100.00% 100.00%	34,102 55,646	37.00% 61.20%	48,221 22,506	52.32% 24.75%	187 148	0.20%	3,908 7,154	4.24% 7.87%	35 20	0.04%	1,172 865	1.27% 0.95%	4,544 4,592	4.93% 5.05%	58,067 35,285	63 38
	93,017	100.00%	70,881	76.20%	9,616	10.34%	148	0.16%	6,764	7.27%	20	0.02%	873	0.95%	4,392	5.08%	22,136	23
1	93,876	100.00%	54,234	57.77%	7,196	7.67%	178	0.19%	26,096	27.80%	22	0.02%	1,087	1.16%	5,063	5.39%	39,642	42
}	91,654	100.00%	78,693	85.86%	2,104	2.30%	189	0.21%	5,206	5.68%	12	0.01%	732	0.80%	4,718	5.15%	12,961	14
}	90,719 91,480	100.00%	65,568 56,810	72.28% 62.10%	4,325 9.289	4.77% 10.15%	189 224	0.21%	13,528 18,498	14.91% 20.22%	58 13	0.06%	1,152 918	1.27% 1.00%	5,899 5,728	6.50% 6.26%	25,151 34,670	27 37
1	90,562	100.00%	59,176	65.34%	18,776	20.73%	402	0.44%	4,436	4.90%	19	0.02%	1,382	1.53%	6,371	7.03%	31,386	34
	91,723	100.00%	47,393	51.67%	35,010	38.17%	413	0.45%	969	1.06%	24	0.03%	1,462	1.59%	6,452	7.03%	44,330	48
	90,457 91,598	100.00% 100.00%	78,248 70,492	86.50%	2,850 9,065	3.15% 9.90%	463 354	0.51% 0.39%	1,081 3,092	1.20% 3.38%	20 14	0.02%	1,398 1,491	1.55% 1.63%	6,397 7,090	7.07%	12,209 21,106	13 23
{	92,583	100.00%	68,970	76.96% 74.50%	12,560	13.57%	429	0.35%	1,293	1.40%	32	0.02 %	2,138	2.31%	7,161	7.74% 7.73%	23,613	25
11	93,460	100.00%	83,089	88.90%	2,471	2.64%	334	0.36%	603	0.65%	19	0.02%	1,076	1.15%	5,868	6.28%	10,371	11
{	92,978	100.00%	68,856	74.06%	15,158	16.30%	345	0.37%	1,195	1.29%	16	0.02%	1,064	1.14%	6,344	6.82%	24,122	25
··{··	92,092 92,730	100.00% 100.00%	50,395 64,685	54.72% 69.76%	26,334 7,468	28.60% 8.05%	430 295	0.47% 0.32%	3,423 10,706	3.72% 11.55%	69 48	0.07% 0.05%	3,060 1,978	3.32% 2.13%	8,381 7,550	9.10% 8.14%	41,697 28,045	45 30
1	92,371	100.00%	80,070	86.68%	2,581	2.79%	477	0.52%	468	0.51%	17	0.02%	2,171	2.35%	6,587	7.13%	12,301	13
	93,023	100.00%	84,457	90.79%	1,384	1.49%	366	0.39%	456	0.49%	16	0.02%	1,515	1.63%	4,829	5.19%	8,566	9
÷	89,634 91,456	100.00% 100.00%	76,569 73,143	85.42% 79.98%	2,492 5,847	2.78% 6.39%	545 824	0.61%	623 1,755	0.70% 1.92%	12 94	0.01%	3,555 2,695	3.97% 2.95%	5,838 7,098	6.51% 7.76%	13,065 18,313	14 20
}	91,456 93,422	100.00%	73,143 64,414	79.98% 68.95%	5,847	6.39% 19.20%	824 446	0.90%	1,755	1.92%	94 37	0.10%	3,017	2.95%	7,098 5,923	6.34%	29,008	31
1	90,270	100.00%	75,397	83.52%	1,606	1.78%	981	1.09%	401	0.44%	41	0.05%	4,701	5.21%	7,143	7.91%	14,873	16
	90,211	100.00%	71,388	79.13%	6,655	7.38%	336	0.37%	4,128	4.58%	14	0.02%	1,456	1.61%	6,234	6.91%	18,823	20
}	91,872 91,192	100.00% 100.00%	56,379 79,672	61.37% 87.37%	20,593 3,219	22.41% 3.53%	631 388	0.69% 0.43%	2,035 1,001	2.22% 1.10%	40 23	0.04%	3,972 1,107	4.32% 1.21%	8,222 5,782	8.95% 6.34%	35,493 11,520	38 12
$\uparrow$	92,518	100.00%	83,262	90.00%	804	0.87%	560	0.61%	495	0.54%	18	0.02%	2,091	2.26%	5,288	5.72%	9,256	10
	89,974	100.00%	62,409	69.36%	13,806	15.34%	600	0.67%	3,405	3.78%	26	0.03%	2,446	2.72%	7,282	8.09%	27,565	30
- <del>{</del>	90,612 91,041	100.00%	83,020 70,025	91.62% 76.92%	1,217 11,359	1.34% 12.48%	452 419	0.50% 0.46%	509 1,165	0.56%	15 11	0.02%	799 1,354	0.88% 1.49%	4,600 6,708	5.08% 7.37%	7,592 21,016	8. 23
·{··	91,302	100.00%	76,784	84.10%	2,909	3.19%	238	0.26%	3,615	3.96%	38	0.01%	1,051	1.15%	6,667	7.30%	14,518	15
11	92,373	100.00%	77,787	84.21%	1,691	1.83%	247	0.27%	6,398	6.93%	19	0.02%	758	0.82%	5,473	5.92%	14,586	15
<b>.</b>	93,247	100.00%	76,725	82.28%	5,461 424	5.86%	273	0.29%	3,943 682	4.23%	46	0.05%	1,295	1.39% 0.79%	5,504	5.90%	16,522	17
<del>.</del>	93,139 91,507	100.00% 100.00%	85,800 82,396	92.12% 90.04%	1,214	0.46%	313 281	0.34% 0.31%	1,187	0.73%	80 18	0.09%	732 809	0.79%	5,108 5,602	5.48% 6.12%	7,339 9,111	7.
-fr	91,098	100.00%	78,955	86.67%	2,604	2.86%	292	0.32%	1,509	1.66%	26	0.03%	1,605	1.76%	6,107	6.70%	12,143	13
<u></u>	93,056	100.00%	41,233	44.31%	32,313	34.72%	604	0.65%	2,146	2.31%	23	0.02%	7,911	8.50%	8,826	9.48%	51,823	55
}	92,949 91,805	100.00% 100.00%	69,591 68,408	74.87%	6,415	6.90%	227 249	0.24% 0.27%	8,885	9.56%	30 21	0.03%	1,683	1.81%	6,118	6.58%	23,358 23,397	25
·}	90,410	100.00%	61,821	74.51% 68.38%	3,180 3,118	3.46% 3.45%	145	0.16%	12,647 19,370	13.78% 21.42%	25	0.02%	1,418 1,048	1.54% 1.16%	5,882 4,883	6.41% 5.40%	28,589	25 31
1	89,693	100.00%	67,466	75.22%	4,709	5.25%	184	0.21%	12,356	13.78%	8	0.01%	839	0.94%	4,131	4.61%	22,227	24
}	90,454	100.00%	71,374	78.91%	7,504	8.30%	182	0.20%	5,672	6.27% 3.70%	15	0.02%	924	1.02%	4,783	5.29% 4.88%	19,080	21
}	89,336 92,742	100.00% 100.00%	78,301 76,496	87.65% 82.48%	2,424 6,765	2.71% 7.29%	168 153	0.19% 0.16%	3,307 3,243	3.50%	15 22	0.02%	758 879	0.85%	4,363 5,184	4.00%	11,035 16,246	12 17
	93,156	100.00%	69,550	74.66%	14,329	15.38%	238	0.26%	2,550	2.74%	15	0.02%	973	1.04%	5,501	5.91%	23,606	25
	90,539	100.00%	70,551	77.92%	12,204	13.48%	293	0.32%	1,320	1.46%	34	0.04%	695	0.77%	5,442	6.01%	19,988	22
	90,638 91,060	100.00% 100.00%	81,158 79,737	89.54% 87.57%	2,888 3,583	3.19% 3.93%	297 433	0.33% 0.48%	683 566	0.75% 0.62%	16 13	0.02%	706 914	0.78% 1.00%	4,890 5,814	5.40% 6.38%	9,480 11,323	10 12
•• <u>†</u> ••	92,892	100.00%	82,920	89.26%	2,178	2.34%	335	0.36%	347	0.37%	52	0.06%	1,785	1.92%	5,275	5.68%	9,972	10
	93,014	100.00%	82,974	89.21%	1,141	1.23%	217	0.23%	1,512	1.63%	25	0.03%	1,382	1.49%	5,763	6.20%	10,040	10
	92,816 93,065	100.00%	82,406 78,123	88.78% 83.94%	3,116 5,898	3.36% 6.34%	432 381	0.47% 0.41%	398 1,643	0.43% 1.77%	9 24	0.01%	834 948	0.90% 1.02%	5,621 6,048	6.06% 6.50%	10,410 14,942	11 16
}	93,085	100.00% 100.00%	64,293	70.11%	19,505	21.27%	415	0.41%	793	0.86%	24 33	0.03%	946 961	1.02%	5,698	6.21%	27,405	29
	90,738	100.00%	34,241	37.74%	47,494	52.34%	452	0.50%	467	0.51%	30	0.03%	1,749	1.93%	6,305	6.95%	56,497	62
{	91,966	100.00%	85,044	92.47%	652	0.71%	335	0.36%	408	0.44%	33	0.04%	664	0.72%	4,830	5.25%	6,922	7.
}	92,844 91,543	100.00% 100.00%	80,267 72,493	86.45% 79.19%	4,617 5,383	4.97% 5.88%	291 303	0.31% 0.33%	1,191 6,910	1.28% 7.55%	19 52	0.02%	775 1,368	0.83% 1.49%	5,684 5,034	6.12% 5.50%	12,577 19,050	13 20
<u> </u>	90,782	100.00%	56,205	61.91%	17,128	18.87%	550	0.61%	3,972	4.38%	37	0.04%	3,382	3.73%	9,508	10.47%	34,577	38
}	93,554	100.00%	75,609	80.82%	4,201	4.49%	366	0.39%	5,550	5.93%	23	0.02%	1,555	1.66%	6,250	6.68%	17,945	19
+	92,354 92,594	100.00% 100.00%	73,944 67,188	80.07% 72.56%	7,522 10,724	8.14% 11.58%	385 647	0.42%	2,408 1,989	2.61% 2.15%	15 37	0.02%	1,689 3,237	1.83% 3.50%	6,391 8,772	6.92% 9.47%	18,410 25,406	19 27
Ť	92,264	100.00%	82,377	89.28%	3,372	3.65%	373	0.40%	394	0.43%	14	0.02%	1,194	1.29%	4,540	4.92%	9,887	10
Ļ	90,952	100.00%	76,188	83.77%	4,108	4.52%	377	0.41%	3,242	3.56%	34	0.04%	1,832	2.01%	5,171	5.69%	14,764	16
	92,350 91,516	100.00% 100.00%	63,481 73,025	68.74% 79.79%	11,437 7,275	12.38% 7.95%	414 335	0.45% 0.37%	7,553 2,949	8.18% 3.22%	22 26	0.02% 0.03%	3,111 1,775	3.37% 1.94%	6,332 6,131	6.86% 6.70%	28,869 18,491	31 20
j	91,219		47,816	52.42%	25,043	27.45%	666	0.37%	3,055	3.35%	38	0.03%	6,954	7.62%	7,647	8.38%	43,403	47
. <u>]</u>	91,341	100.00% 100.00%	51,490	56.37%	8,980	27.45% 9.83%	1,251	1.37%	2,526	3.35% 2.77%	30	0.03%	16,183	17.72%	10,881	11.91%	39,851	43
	91,890 90,127	100.00%	71,258 80,012	77.55% 88.78%	5,974 1,168	6.50% 1.30%	604 232	0.66%	1,708 1.947	1.86% 2.16%	44 19	0.05%	5,082 1,728	5.53% 1.92%	7,220 5,021	7.86%	20,632 10,115	2
÷	90,127 90,575	100.00%	64,083	70.75%	2,697	2.98%	720	0.26%	4,737	2.16% 5.23%	19 68	0.02%	8,794	9.71%	9,476	5.57%	26,492	29
1	91,376	100.00%	58,641	64.18%	22,355	24.46%	797	0.87%	477	0.52%	32	0.04%	2,292	2.51%	6,782	7.42%	32,735	35
}	90,900 93,134	100.00% 100.00%	81,190 82,753	89.32% 88.85%	1,379	1.52% 1.99%	400 528	0.44% 0.57%	1,309 778	1.44% 0.84%	15 19	0.02%	1,294 1,961	1.42% 2.11%	5,313 5,240	5.84% 5.63%	9,710 10,381	10 11
{	93,134	100.00%	81,282	88.85% 88.79%	1,855 1,542	1.68%	331	0.36%	854	0.84%	19 16	0.02%	2,014	2.11%	5,240	6.02%	10,381	11
	91,350	100.00%	84,170	92.14%	525	0.57%	363	0.40%	355	0.39%	37	0.04%	1,134	1.24%	4,766	5.22%	7,180	7.
}	92,520 89.410	100.00%	77,464	83.73% 88.46%	4,335	4.69% 3.87%	2,433 275	2.63%	1,269	1.37%	45 36	0.05%	1,639	1.77%	5,335 4 116	5.77% 4.60%	15,056	16 11
}	89,410 90,438	100.00% 100.00%	79,094 45,474	88.46% 50.28%	3,463 31,497	3.87% 34.83%	275 510	0.31% 0.56%	1,061 1,155	1.19% 1.28%	36 63	0.04% 0.07%	1,365 4,164	1.53% 4.60%	4,116 7,575	4.60% 8.38%	10,316 44,964	11 49
1	91,439	100.00%	82,319	90.03%	985	1.08%	383	0.42%	1,750	1.91%	88	0.10%	816	0.89%	5,098	5.58%	9,120	9.
	90,544	100.00%	80,953	89.41%	1,633	1.80%	407	0.45%	499	0.55%	5	0.01%	1,241	1.37%	5,806	6.41%	9,591	10
{	93,159 92,049	100.00%	84,215 86,463	90.40% 93.93%	2,169	2.33% 0.35%	359 312	0.39%	465 271	0.50%	9 19	0.01%	1,019 912	1.09%	4,923 3,749	5.28%	8,944 5,586	9 6
··{··	92,049 89,375	100.00% 100.00%	83,745	93.93% 93.70%	323 355	0.35% 0.40%	512	0.34% 0.57%	271 336	0.29% 0.38%	19	0.02%	912 567	0.99% 0.63%	3,749 3,842	4.07% 4.30%	5,586 5,630	6
	91,751	100.00%	84,564	92.17%	1,120	1.22%	587	0.64%	423	0.46%	24	0.03%	592	0.65%	4,441	4.84%	7,187	7
~f~	92,604	100.00%	83,233	89.88%	1,500	1.62%	572	0.62%	425	0.46%	23	0.02%	1,456	1.57%	5,395	5.83%	9,371	10
	91,886 93,426	100.00% 100.00%	80,628 84,738	87.75% 90.70%	1,157 507	1.26% 0.54%	1,128 1,344	1.23% 1.44%	379 750	0.41% 0.80%	16 42	0.02%	2,386 1,058	2.60% 1.13%	6,192 4,987	6.74% 5.34%	11,258 8,688	12 9.
Ţ.	89,466	100.00%	82,512	92.23%	327	0.37%	951	1.06%	402	0.45%	40	0.04%	767	0.86%	4,467	4.99%	6,954	7.
	89,541	100.00%	83,686	93.46%	292	0.33%	508	0.57%	293	0.33%	18	0.02%	575	0.64%	4,169	4.66%	5,855	6.
{	90,875 92,701	100.00% 100.00%	84,710 77,837	93.22% 83.97%	261	0.29% 1.25%	1,032 6,599	1.14% 7.12%	302 487	0.33% 0.53%	20 41	0.02% 0.04%	359 549	0.40%	4,191 6,028	4.61% 6.50%	6,165 14,864	6. 16
{	89,366	100.00%	76,583	85.70%	1,160 2,001	2.24%	4,958	5.55%	311	0.35%	20	0.04%	382	0.59% 0.43%	5,111	6.50% 5.72%	12,783	16. 14.
	89,410	100.00%	78,763	88.09%	2,003	2.24%	2,530	2.83%	464	0.52%	33	0.04%	465	0.52%	5,152	5.76%	10,647	11

## 35.26% 11.54% 33.31% 40,347 16,653 7,678 83.21% 36.73% 48.82% 58.92% 63.32% 63.90% 55.72% 58.32% 259 275 198 114 166 130 157 270 2,740 4,211 3,888 3,102 3,034 3,202 3,565 4,327 91,856 89,622 93,531 90,903 92,744 93,629 92,948 92,670 15,42 56,70 47,86 37,34 34,01 33,80 41,15 38,62 32,391 10,340 31,155 47,860 51,820 53,053 43,622 42,376 299 1,013 2,189 430 1,419 1,074 1,400 3,854 10 34 11 32,918 45,664 53,556 58,728 59,826 51,793 54,042 18.58% 8.21% 1.72% 1.96% 63.27% 51.18% 1.13% 2.34% 0.44% 0.58% 0.49% 0.49% 0.45% 0.49% 0.04% 4.70% 4.16% 100.00% 52.65% 55.87% 56.66% 46.93% 45.73% 0.47% 1.53% 1.15% 1.51% 4.16% 3.41% 3.27% 3.42% 3.84% 4.67% 100.00% 100.00% 478 454 457 422 457 100.00% 100.00% 36.10% 44.28% 41.68% 0.01% 2,599 2,743 28 13,799 1,884 730 1,203 3,717 64,969 42,454 49,074 48,966 47,398 55,246 17,647 45,458 34,530 42,676 40,295 37,418 184 152 173 219 213 247 198 90,818 90,534 91,145 90,630 90,393 25,849 48,080 42,071 28.46% 53.11% 46.16% 45.97% 47.56% 50.059 38.149 46.829 44.469 41.399 43.399 7.49% 56.889 44.579 0.20% 0.17% 0.19% 0.24% 0.24% 15.199 2.08% 0.80% 1.33% 4.11% 10.11% 1.72% 0.94% 1.80% 0.02% 0.03% 0.01% 0.02% 0.02% 1,425 2,511 2,000 1.57% 2.77% 2.19% 2.45% 2.17% 3,636 2,994 3,161 4,579 3,689 3,873 3,732 3,432 3,832 71.54% 46.89% 53.84% 54.03% 52.44% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 450 360 322 0.50% 0.40% 0.35% 0.48% 0.42% 0.48% 0.48% 0.40% 0.50% 0.49% 4.00% 3.31% 3.47% 5.05% 4.08% 4.28% 4.04% 3.69% 4.22% 10 11 12 13 14 15 16 17 2,219 38.99% 80.88% 34.88% 45.56% 9,154 1,586 873 1,629 2,221 4,831 2,668 2,812 2.45% 5.23% 2.87% 3.10% 2.71% 2.80% 61.01% 19.12% 65.12% 54.44% 90,555 92,301 93,035 90,737 35,309 74,654 39,296 6,917 43 36 46 32,455 41,338 52,916 40,442 0.029 92,169 90,931 36.509 60.639 47,960 22,386 52.039 24.629 3,878 7,143 4.219 7.869 0.039 0.639 2,499 2,544 3,435 3,167 3.73% 3.48% 58,531 35,802 63.50% 39.37% 55,129 90,931 93,017 93,876 91,654 90,719 91,480 90,562 91,723 90,457 91,598 6,752 26,056 5,197 22,694 40,300 13,706 100.00% 70,32 53,57 75.60% 57.07% 9,558 7,130 10.28% 7.60% 95 132 7.26% 0.02% 0.02% 0.01% 0.06% 0.01% 0.02% 0.02% 0.439 2,489 3,266 2.68% 3.48% 3.19% 4.41% 3.69% 4.47% 4.20% 6.36% 3,376 3,297 3.63% 3.51% 24.40% 42.93% 402 397 . . . . . 42.93% 14.95% 29.39% 38.82% 35.87% 49.48% 15.67% 25.02<sup>w</sup> 85.05% 70.61% 61.18% 64.13% 50.52% 84.33% 100.00% 100.00% 100.00% 77,94 64,05 55,97 2,044 4,244 9,180 2.23% 0.14 5.679 297 0.32% 0.56% 0.44% 0.48% 0.45% 0.34% 2,920 3,112 4,233 3,923 4,682 5,092 3,961 3.40% 4.67% 4.29% 5.17% 5.55% 4.38% 26,665 35,508 32,483 45,385 14,179 4.68% 10.03% 13,492 18,470 14.879 4,003 3,377 126 151 310 322 313 398 436 410 307 100.00% 100.00% 100.00% 58,079 46,338 76,278 18,588 34,727 2,759 20.53% 37.86% 3.05% 4,408 962 1,067 4.87% 1.05% 1.18% 4,044 3,853 5,757 91,598 92,583 93,460 92,978 6.38% 6.24% 6.68% 4.06% 4.03% 7.17% 5.90% 4.38% 5.01% 5.31% 4.73% 5.26% 6.64% 5.49% 68,684 67,100 81,702 67,635 74.98% 72.48% 87.42% 72.74% 8,933 12,382 2,404 14,875 9.75% 13.37% 2.57% 16.00% 3,081 1,279 598 1,183 3.36% 1.38% 0.64% 1.27% 5,716 6,184 3,799 3,748 100.00% 100.00% 274 299 246 281 252 139 0.30% 11 27 0.01% 0.03% 306 393 268 352 614 421 0.33% 4,593 4,919 4,424 4,890 6,118 5,094 3,913 3,462 4,178 5,163 3,931 4,368 4,563 6,078 4,567 3,656 5,470 3,580 5,256 22,914 25,343 11,758 25,343 43,101 29,206 15,597 9,723 14,233 19,772 30,297 16,999 19,879 30,297 16,999 19,879 30,297 16,999 19,879 30,297 16,999 19,879 19,772 12,502 10,704 22,339 15,555 15,368 15,369 15,368 15, 25.02% 27.52% 27.52% 27.26% 46.80% 31.50% 16.89% 10.45% 32.43% 21.62% 32.43% 18.83% 22.03% 13.71% 13.71% 13.71% 2.60% 24.50% 2.60% 2 0.299 0.389 0.679 0.459 0.02% 100.00% 14 64 35 1,183 3,400 10,684 447 451 621 1,733 53.209 68.509 28.29% 7.94% 0.275 92,092 92,730 48,99 63,52 26,052 7,364 3.69% 11.52% 6,601 5,469 0.01% 8,205 3,903 6,274 5,983 8.88% 4.20% 7.00% 6.54% 2.61% 1.44% 2.73% 6.26% 19.03% 1.69% 7.16% 21.99% 3.44% 0.80% 15.11% 1.29% 3.10% 1.79% 0.34% 0.30% 0.43% 0.74% 4.24% 3.72% 4.66% 5.65% 4.21% 4.84% 4.99% 6.62% 5.01% 3.95% 6.08% 3.95% 5.77% 5.22% 4.32% 3.99% 4.05% 4.41% 92.371 93.023 89.634 91.456 93.422 90.270 90.211 91.872 91.192 92.518 89.974 90.612 91.041 91.302 92.373 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 76,774 83,300 75,401 71,684 63,125 73,271 70,342 54,660 78,690 81,814 60,643 81,911 68,652 83.11% 89.55% 84.12% 78.38% 67.57% 81.17% 77.97% 59.50% 86.29% 88.43% 67.40% 90.40% 75.41% 82.97% 83.36% 81.32% 91.14% 2,413 1,339 2,450 5,729 17,779 1,528 6,456 20,200 3,136 736 13,593 1,173 11,138 317 279 387 674 325 676 226 328 333 437 438 389 318 160 207 0.48% 0.48% 0.69% 1.89% 1.75% 0.44% 4.56% 2.17% 1.09% 0.52% 3.76% 0.55% 1.26% 3.93% 6.90% 294 273 311 402 400 309 431 628 351 272 428 247 316 361 348 0.32% 0.29% 0.35% 0.44% 0.43% 0.43% 0.48% 0.48% 0.68% 0.29% 0.48% 0.22% 0.35% 12 88 30 28 13 28 6,196 9,692 4,124 7,955 3,106 5,105 5,998 0.35% 0.75% 0.25% 0.36% 0.37% 0.47% 0.49% 0.43% 0.35% 1,636 398 4,116 1,995 992 480 3,384 502 1,148 0.03% 0.03% 0.01% 0.02% 0.02% 0.02% 0.02% 0.02% 0.01% 0.04% 0.04% 6.63% 10.74% 4.57% 8.66% 3.41% 5.52% 6.67% 3.08% 4.62% 4.17% 3.00% 5,998 2,795 4,202 3,811 2,774 0.18% 4,767 75,752 77,005 2,826 1,651 3.58 6,37 4.20% 0.72% 1.29% 1.63% 0.05% 0.09% 0.02% 0.02% 4.03% 3.01% 3.41% 5.77% 18.68% 8.86% 11.00% 15.05% 5,392 407 93,247 93,139 100.00% 75,830 84,890 3,91 672 0.40% 3,758 2,808 5.78% 0.44% 216 256 218 196 371 253 294 291 3,721 3,773 1,193 2,509 91,507 91,098 100.00% 81,444 77,384 89.00% 84.95% 1.30% 0.329 3,123 5,252 3,96 93,056 92,949 91,805 100.00% 100.00% 100.00% 37,975 68,469 67,646 40.81% 73.66% 73.68% 31,586 6,297 3,132 33.94% 6.77% 3.41% 253 136 148 0.27% 0.15% 0.16% 2,124 8,852 12,615 2.28% 9.52% 13.74% 0.02% 0.03% 0.02% 0.43% 0.47% 0.32% 16,376 4,793 4,303 17.60% 5.16% 4.69% 4,324 3,935 3,650 4.65% 4.23% 3.98% 59.19% 26.34% 26.32% 397 438 295 55.081 24.480 24.159 29.178 22.772 19.746 11.640 17.016 24.378 20.765 10.249 12.841 11.180 11.007 73.68% 67.73% 74.61% 78.17% 86.97% 81.65% 73.83% 77.07% 88.69% 85.90% 100.00% 100.00% 100.00% 0.11% 0.17% 0.16% 21.41% 13.76% 6.25% 61,232 66,921 70,708 3,063 4,655 7,445 100 148 144 19,35-12,332 5,657 3,297 3,222 2,535 1,301 669 557 335 1,497 335 1,497 334 460 3,940 5,524 24 6 12 0.03% 0.01% 0.01% 0.32% 0.28% 0.41% 3.38% 2.60% 2.72% 2.91% 3.23% 3.08% 2.83% 2.65% 4.08% 5.03% 4.41% 3,290 3,040 3,661 3,035 3,734 4,221 3.64% 3.39% 4.05% 3.40% 4.03% 4.03% 4.73% 4.73% 4.73% 4.74% 4.94% 5.58% 4.94% 5.58% 4.99% 4.52% 3.95% 5.68% 32.27% 25.39% 21.83% 13.03% 18.35% 26.17% 22.93% 11.31% 14.10% 12.04% 11.83% 90.410 89,693 90,454 89,336 92,742 93,156 90,539 90,638 91,060 92,816 93,014 92,816 93,065 91,698 90,738 91,966 91,966 91,543 90,782 93,554 3.39% 5.19% 8.23% 2.68% 7.23% 15.25% 13.35% 3.12% 3.78% 287 253 367 193 3,060 2,332 2,460 2,602 2,994 2,870 2,564 2,399 2,392 6,701 14,207 0.12% 0.13% 0.19% 0.27% 0.22% 0.25% 0.38% 0.30% 0.27% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 77,696 75,726 68,778 69,774 80,389 78,219 81,712 82,007 81,074 76,629 63,049 3.69% 3.47% 2.72% 1.44% 0.74% 0.61% 0.61% 0.42% 1.61% 0.42% 1.74% 0.85% 0.51% 0.43% 1.27% 4.34% 5.90% 2.58% 2.11% 0.01% 0.02% 0.01% 0.03% 0.02% 0.01% 0.06% 0.02% 0.02% 0.02% 0.04% 108 118 181 240 250 16 12 24 15 231 352 268 246 12,088 2,827 3,442 2,129 1,094 4,280 3,843 0.38% 0.25% 0.18% 0.39% 85.90% 87.96% 88.17% 87.35% 82.34% 68.76% 36.26% 91.17% 85.21% 77.71% 58.79% 79.32% 78.11% 69.49% 273 232 277 252 271 305 458 208 261 303 489 399 0.30% 0.25% 0.30% 0.27% 0.29% 0.33% 3,711 4,674 4,098 4,500 3,523 3,856 4,381 4,592 4,544 5,067 3,760 4,201 3,615 6,053 4,282 4,189 5,261 347 235 164 361 294 336 341 276 241 233 325 2.29% 1.18% 3.28% 6.24% 21.079 4.41% 3.56% 4.12% 3.62% 4.87% 3.06% 11.742 16,436 28,649 57,833 8,122 13,734 20,402 37,411 19,344 20,219 28,252 31.24% 63.74% 8.83% 14.79% 0.04% 0.03% 0.03% 0.02% 0.06% 0.06% 100.00% 100.00% 100.00% 51.87% 0.69% 4.89% 5.83% 18.25% 4.35% 0.50% 0.23% 0.28% 0.33% 0.54% 0.38% 4,417 2,816 3,295 3,976 32,905 83,844 47,063 634 4,536 5,333 16,567 4,069 7,310 10,256 ... 83,844 79,110 71,141 53,371 74,210 72,135 64,344 3.06% 3.55% 4.34% 11.02% 5.12% 6.26% 10.61% 100.009 100.009 100.009 100.009 100.009 22.29% 41.21% 20.68% 0.029 0.019 0.039 258 257 391 7.92% 21.89% 92,354 92,594 2,379 294 535 5,780 69.49% 87.59% 82.38% 67.22% 78.37% 49.92% 51.58% 75.14% 100.00% 100.00% 100.00% 100.00% 3,343 4,009 11,156 7,092 24,408 306 282 190 218 0.33% 0.31% 0.21% 0.24% 0.03% 3.48% 3.93% 4.32% 4.59% 4.56% 12.41% 17.62% 80,814 74,930 92,264 90,952 3.62% 4.41% 389 3,225 7,515 2,922 3,039 2,494 1,681 0.42% 0.249 3,977 4,590 4.31% 5.05% 3,209 3,570 11,450 16,022 62,08 71,72 45,53 47,115 69,04 4,590 7,053 5,026 13,338 3,570 3,993 4,205 4,159 3,910 4,375 92,350 91,516 91,219 91,341 91,890 12.08% 7.75% 26.76% 9.19% 6.21% 8.14% 3.19% 348 307 474 0.347 7.64% 5.49% 30,270 19,792 45,682 44,226 22,846 32.78% 21.63% 0.24% 5.49% 14.62% 31.56% 11.25% 233 282 380 3.339 0.039 100.009 100.009 100.009 8,396 5,702 2.73% 1.83% 0.339 28,823 10,341 4.28% 4.76% 48.42% 24.86% 11,593 30,781 34,802 11,083 87.14% 66.02% 61.91% 87.81% 2.12% 5.08% 5,138 20,099 6,240 4,199 100.00% 90,127 90,575 91,376 90,900 93,134 91,549 91,350 92,520 89,410 90,438 91,439 90,544 78,534 59,794 1,089 2,371 1.21% 2.62% 126 170 597 341 1,908 4,597 0.02% 0.07% 231 274 314 256 0.269 5.70% 22.19% 3,086 3,205 3.42% 3.54% 12.86% 33.98% 15 65 23 5.53% 4.02% 3.95% 4.07% 3.94% 22,119 24.21% 1.47% 1.96% 1.60% 0.53% 4.58% 3.80% 3.3.75% 1.05% 1.69% 2.28% 0.32% 0.32% 0.32% 1.17% 1.49% 1.22% 0.53% 0.35% 0.349 100.009 56,57 79,81 459 1,290 760 837 346 1,266 1,051 1,118 1,727 0.509 6.83% 4.62% 5,050 3,652 38.09 12.19 1,822 1,465 487 0.02% 0.27% 0.30% 0.23% 5.55% 5.69% 3.79% 5.84% 5.25% 0.45% 0.22% 0.34% 0.82% 5,165 5,205 3,465 100.00% 100.00% 421 199 313 250 272 212 13.019 12.809 81,021 79,833 86.99% 87.20% 17 14 3,678 3,724 3,595 3,822 2,547 4,063 3,899 3,825 12,113 11,716 0.38% 1.37% 1.18% 1.24% 82,902 75,353 77,316 41,966 81,252 78,601 82,768 85,257 82,996 83,685 81,036 78,502 83,811 81,664 83,811 81,664 83,811 81,664 83,201 100.009 90.75% 81.45% 86.47% 46.40% 88.86% 88.85% 92.62% 92.62% 92.86% 91.21% 87.51% 85.43% 89.71% 91.28% 0.05% 4.13% 2.85% 4.49% 4.26% 17,167 12,100 48,472 10,187 11,943 18.559 13.539 53.609 11.149 13.199 100.00% 100.00% 100.00% 100.00% 0.29% 0.22% 0.53% 0.37% 5,400 4,694 11,982 2,844 4,234 3,396 265 199 476 340 42 23 63 83 0 0.21% 190 248 331 308 296 255 469 511 465 929 1,177 892 446 997 6,484 4,863 2,458 13.25% 3.11% 6.14% 0.09% 0.00% 0.01% 0.02% 0.02% 0.02% 0.02% 0.02% 100.00% 4.28% 4.22% 3.75% 2.91% 3.56% 4.11% 4.27% 4.32% 0.34 0.55% 2,014 5,563 3,751 3,084 1,867 2,010 5,072 6,712 3,141 2,307 499 457 267 313 415 416 369 736 398 287 283 481 304 453 108 11,943 10,391 6,792 6,379 8,066 11,568 13,384 9,615 7,802 6,559 6,672 15,477 13,358 11,259 93,159 92,049 89,375 91,751 100.00% 100.00% 100.00% 100.00% 2,125 294 343 1,078 0.32% 0.28% 0.52% 0.56% 0.50% 1.01% 11.15% 7.38% 7.14% 8.79% 12.49% 14.57% 0.28% 0.21% 0.22% 0.28% 0.28% 0.28% 0.28% 0.28% 0.22% 0.24% 0.32% 0.32% 0.18% 4.03% 3.35% 2.09% 2.19% 5.48% 7.30% 3.36% 2.58% 0.49% 0.29% 0.35% 0.45% 0.45% 0.40% 0.79% 0.44% 0.32% 0.31% 0.52% 0.34% 0.51% 1.19% 259 197 195 260 257 267 3,496 2,678 3,180 3,771 3,952 3,968 3,748 3,611 92,604 91,886 93,426 89,466 ,384 4.01% 4.04% 3.83% 4.07% 5.81% 5.06% 100.00% 0.03% 0.04% 0.02% 0.02% 0.04% 0.02% 0.29% 8.72% 495 312 286 241 1,146 1,979 xh 2,307 1,899 1,218 1,644 1,510 1,648 1,545 91.28% 92.67% 92.66% 83.30% 85.05% 87.41% 91.64% 0.35% 0.32% 0.27% 1.24% 2.21% 2.21% 0.48% 2.58% 2.12% 1.34% 1.77% 1.69% 1.84% 1.70% 89,541 90,875 92,701 89,366 89,410 0.50% 1.10% 6.99% 5.44% 2.75% 1.00% 194 220 298 164 7.33% 7.34% 16.70% 14.95% 100.00% 100.00% 100.00% 100.00% 3,432 3,699 5,384 4,520 4,457 3,328 -4 40 18 22 ···· 109 110 4.98%

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	91,856 89,622	113.30% 111.17%	31,890 69,598	34.72% 77.66%	35,555	38.71% 14.06%	3,066	3.34%	823	0.90% 1.70%	169	0.18%	32,569	35.46% 14.45%	59,966 20,024	65.2 22.3
	89,622 93,531	111.17%	69,598 54,912	58.71%	12,604 33,175	14.06% 35.47%	2,827	3.15% 1.51%	1,528 3,581	1.70%	122 91	0.14%	12,953 6.978	14.45% 7.46%	20,024 38,619	22.3 41.2
	90,903	104.30%	40,595	44.66%	49,781	54.76%	1,415 828	0.91%	1,480	1.63%	117	0.13%	2,014	2.22%	50,308	55
	92,744	104.59%	37,583	40.52%	53,941	58.16%	1,126	1.21%	2,150	2.32%	89	0.10%	2,108	2.27%	55,161	59
	93,629	104.80%	37,626	40.19%	55,395	59.16%	1,249	1.33%	1,770	1.89%	83	0.09%	1,999	2.14%	56,003	59.
	92,948	105.53%	45,896	49.38%	45,819	49.30%	1,433	1.54%	2,322	2.50%	122	0.13%	2,495	2.68%	47,052	50.
~~~~	92,670 90,818	106.37% 104.93%	43,970 29,603	47.45% 32.60%	45,370 47,417	48.96% 52.21%	1,968 989	2.12% 1.09%	4,610 15,590	4.97% 17.17%	104 107	0.11% 0.12%	2,547 1,585	2.75% 1.75%	48,700 61,215	52. 67.
	90,534	105.15%	52,373	57.85%	36,447	40.26%	1,201	1.33%	2,636	2.91%	97	0.11%	2,441	2.70%	38,161	42.
	91,145	104.75%	46,118	50.60%	44,713	49.06%	1,383	1.52%	1,228	1.35%	76	0.08%	1,959	2.15%	45,027	49.
	90,630	106.43%	47,138	52.01%	43,197	47.66%	2,080	2.30%	1,677	1.85%	95	0.10%	2,268	2.50%	43,492	47.
	90,393	105.35%	47,502	52.55%	39,685	43.90%	1,652	1.83%	4,294	4.75%	92	0.10%	2,005	2.22%	42,891	47.
	90,555 92,301	105.47% 106.56%	39,959 81,579	44.13% 88.38%	41,764 8,247	46.12% 8.93%	1,601 1,493	1.77% 1.62%	9,871 2,656	10.90% 2.88%	88 95	0.10%	2,229 4,285	2.46% 4.64%	50,596 10,722	55. 11.
	93,035	105.40%	36,893	39.65%	55,514	59.67%	1,653	1.78%	1,425	1.53%	73	0.08%	2,504	2.69%	56,142	60.
	90,737	105.93%	46,344	51.08%	42,910	47.29%	1,816	2.00%	2,283	2.52%	59	0.07%	2,706	2.98%	44,393	48.
	92,169	105.51%	37,812	41.02%	50,550	54.84%	1,404	1.52%	4,663	5.06%	74	0.08%	2,746	2.98%	54,357	58.
	90,931 93,017	105.42% 105.37%	59,752 75,332	65.71% 80.99%	23,957 10,526	26.35% 11.32%	894 1,056	0.98% 1.14%	8,241 7,965	9.06% 8.56%	63 89	0.07%	2,957 3,048	3.25% 3.28%	31,179 17,685	34. 19.
	93,876	105.73%	59,032	62.88%	8,061	8.59%	1,079	1.15%	27,340	29.12%	86	0.09%	3,661	3.90%	34,844	37.
	91,654	105.40%	83,267	90.85%	2,738	2.99%	1,270	1.39%	6,212	6.78%	59	0.06%	3,058	3.34%	8,387	9.1
	90,719	107.02%	71,255	78.54%	5,470	6.03%	1,069	1.18%	15,539	17.13%	135	0.15%	3,617	3.99%	19,464	21.
	91,480	106.63% 107.54%	62,185 65,012	67.98% 71.79%	10,606 20,990	11.59%	1,438 2,392	1.57% 2.64%	19,756	21.60% 5.66%	80	0.09%	3,476	3.80% 4.17%	29,295 25,550	32.
	90,562 91,723	107.54%	53,187	57.99%	20,990	23.18% 41.39%	2,392	2.64%	5,128 1,527	1.66%	99 128	0.11%	3,773 3,418	4.17% 3.73%	25,550 38,536	28.1 42.0
	90,457	107.47%	84,431	93.34%	3,873	4.28%	2,578	2.85%	1,657	1.83%	103	0.11%	4,568	5.05%	6,026	6.6
	91,598	108.09%	77,349	84.44%	10,501	11.46%	2,593	2.83%	3,690	4.03%	97	0.11%	4,782	5.22%	14,249	15.
	92,583	108.23%	75,763	81.83%	14,593	15.76%	2,791	3.01%	1,793	1.94%	102	0.11%	5,161	5.57%	16,820	18.1
	93,460	106.55%	88,833	95.05%	3,684	3.94%	2,548	2.73%	1,015	1.09%	57	0.06%	3,448	3.69%	4,627	4.9
	92,978 92,092	107.25% 110.08%	74,788 57,984	80.44% 62.96%	17,183 30,032	18.48% 32.61%	2,511 2,382	2.70% 2.59%	1,825 4,774	1.96% 5.18%	122 199	0.13%	3,291 6,004	3.54% 6.52%	18,190 34,108	19.5 37.0
	92,730	108.78%	71,807	77.44%	9,308	10.04%	1,696	1.83%	12,597	13.58%	157	0.17%	5,310	5.73%	20,923	22.5
	92,371	107.49%	86,520	93.67%	3,899	4.22%	2,561	2.77%	941	1.02%	60	0.06%	5,306	5.74%	5,851	6.3
	93,023	105.44%	89,195	95.88%	2,033	2.19%	2,251	2.42%	897	0.96%	87	0.09%	3,620	3.89%	3,828	4.1
	89,634 91,456	106.85% 108.26%	82,233 79,942	91.74% 87.41%	3,946 7,861	4.40% 8.60%	2,276 3,095	2.54% 3.38%	1,066 2,353	1.19% 2.57%	90 174	0.10% 0.19%	6,161 5,584	6.87% 6.11%	7,401 11,514	8.2 12.5
	93,422	106.71%	79,942	74.93%	19,452	20.82%	2,078	2.22%	2,333	2.38%	1/4	0.19%	5,838	6.25%	23,418	25.0
	90,270	108.35%	82,334	91.21%	2,875	3.18%	3,399	3.77%	811	0.90%	113	0.13%	8,277	9.17%	7,936	8.7
	90,211	107.37%	77,327	85.72%	8,544	9.47%	1,912	2.12%	5,143	5.70%	101	0.11%	3,833	4.25%	12,884	14.3
	91,872 91,192	109.65% 106.67%	63,904 85,299	69.56% 93.54%	24,603	26.78% 5.13%	2,649 2,457	2.88% 2.69%	2,865 1,543	3.12% 1.69%	138	0.15% 0.08%	6,577 3,226	7.16% 3.54%	27,968 5,893	30. 6.4
	92,518	105.98%	88.460	95.61%	4,675 1,615	1.75%	2,437	2.48%	964	1.09%	70 87	0.08%	4.634	5.01%	4,058	4.3
	89,974	108.63%	69,297	77.02%	17,132	19.04%	2,574	2.86%	3,907	4.34%	123	0.14%	4,705	5.23%	20,677	22.9
	90,612	105.30%	87,502	96.57%	2,164	2.39%	2,330	2.57%	879	0.97%	60	0.07%	2,480	2.74%	3,110	3.4
	91,041	107.76%	76,459	83.98%	14,219	15.62%	2,308	2.54%	1,606	1.76%	68	0.07%	3,443	3.78%	14,582	16.0
	91,302 92,373	107.73% 106.22%	83,163 83,115	91.09% 89.98%	4,313 2,484	4.72% 2.69%	1,858 1,821	2.04% 1.97%	5,048 7,497	5.53% 8.12%	123 79	0.13% 0.09%	3,856 3,127	4.22% 3.39%	8,139 9,258	8.9 10.0
	93,247	106.20%	82,062	88.00%	6,326	6.78%	1,699	1.82%	4,825	5.17%	122	0.13%	3,998	4.29%	11,185	12.0
	93,139	105.64%	90,835	97.53%	926	0.99%	2,255	2.42%	1,241	1.33%	152	0.16%	2,986	3.21%	2,304	2.4
	91,507	106.38%	87,892	96.05%	1,882	2.06%	2,086	2.28%	1,902	2.08%	63	0.07%	3,517	3.84%	3,615	3.9
	91,098 93,056	107.01% 110.12%	84,888 49,242	93.18% 52.92%	3,648 35,396	4.00% 38.04%	1,969 2,281	2.16% 2.45%	2,331 2,700	2.56% 2.90%	57 101	0.06%	4,589 12,757	5.04% 13.71%	6,210 43,814	6.8 47.0
	92,949	106.97%	75,403	81.12%	7,655	8.24%	1,492	1.61%	10,106	10.87%	77	0.08%	4,698	5.05%	17,546	18.
	91,805	106.68%	74,073	80.69%	3,985	4.34%	1,309	1.43%	13,864	15.10%	81	0.09%	4,630	5.04%	17,732	19.:
	90,410	105.70%	66,478	73.53%	3,909	4.32%	1,135	1.26%	20,640	22.83%	78	0.09%	3,320	3.67%	23,932	26.
	89,693	104.84%	71,350 75.924	79.55% 83.94%	5,472	6.10%	996	1.11%	13,545	15.10%	86	0.10%	2,581	2.88%	18,343	20.4
	90,454 89,336	105.57% 105.10%	75,924 82,517	83.94% 92.37%	8,603 2,993	9.51% 3.35%	1,388 1,183	1.53%	6,743 4,197	7.45% 4.70%	97 71	0.11% 0.08%	2,738 2,932	3.03% 3.28%	14,530 6,819	16.0 7.6
•••••	92,742	105.87%	81,470	87.85%	7,829	8.44%	1,420	1.32% 1.53%	4,133	4.46%	81	0.09%	3,256	3.51%	11,272	12.1
	93,156	106.29%	74,707	80.20%	16,298	17.50%	1,753	1.88%	3,282	3.52%	71	0.08%	2,902	3.12%	18,449	19.
	90,539	106.32%	75,679	83.59%	13,752	15.19%	2,101	2.32%	2,009	2.22%	99	0.11%	2,625	2.90%	14,860	16.4
	90,638 91,060	105.64% 106.74%	85,904 85,424	94.78% 93.81%	3,820 5,437	4.21% 5.97%	2,089 2,348	2.30% 2.58%	1,294 989	1.43% 1.09%	62 84	0.07% 0.09%	2,582 2,919	2.85% 3.21%	4,734 5,636	5.2 6.1
~~~~~	92,892	105.90%	88,069	94.81%	2,927	3.15%	2,185	2.35%	735	0.79%	94	0.10%	4,366	4.70%	4,823	5.1
	93,014	106.47%	88,588	95.24%	1,922	2.07%	1,929	2.07%	2,240	2.41%	60	0.06%	4,295	4.62%	4,426	4.7
	92,816	106.33%	87,918	94.72%	4,053	4.37%	2,725	2.94%	813	0.88%	69	0.07%	3,111	3.35%	4,898	5.2
	93,065	106.80%	83,935	90.19%	7,397	7.95%	2,526	2.71%	2,198	2.36%	99	0.11%	3,239	3.48%	9,130	9.8
~~~~	91,698 90,738	106.57% 107.52%	69,668 39,783	75.98% 43.84%	21,511 51,173	23.46% 56.40%	2,436 2,324	2.66% 2.56%	1,233 811	1.34% 0.89%	85 103	0.09%	2,793 3,365	3.05% 3.71%	22,030 50,955	24.0 56.1
	91,966	105.50%	89,799	97.64%	1,359	1.48%	2,293	2.49%	794	0.86%	121	0.13%	2,662	2.89%	2,167	2.3
	92,844	106.45%	85,783	92.39%	5,786	6.23%	2,312	2.49%	1,852	1.99%	82	0.09%	3,013	3.25%	7,061	7.6
	91,543	105.80%	77,345	84.49%	6,505	7.11%	1,619	1.77%	7,849	8.57%	120	0.13%	3,413	3.73%	14,198	15.
~~~~	90,782 93,554	111.30% 107.08%	65,006 81,620	71.61% 87.24%	21,379 5,751	23.55% 6.15%	2,692 1,949	2.97% 2.08%	4,757 6,584	5.24% 7.04%	143 97	0.16%	7,061 4,177	7.78% 4.46%	25,776 11,934	28. 12.
	93,354	107.40%	80,047	86.67%	9,421	10.20%	2,283	2.47%	2,954	3.20%	128	0.10%	4,177 4,357	4.40%	12,307	13.3
	92,594	110.15%	75,423	81.46%	13,921	15.03%	2,650	2.86%	2,722	2.94%	142	0.15%	7,138	7.71%	17,171	18.
	92,264	105.16%	86,819	94.10%	4,151	4.50%	1,900	2.06%	825	0.89%	85	0.09%	3,249	3.52%	5,445	5.9
~~~~	90,952 92,350	106.07% 107.27%	81,143 69,294	89.22% 75.03%	5,396 13,469	5.93% 14.58%	1,718 1,524	1.89% 1.65%	3,990 8,632	4.39% 9.35%	136 104	0.15% 0.11%	4,089 6,042	4.50% 6.54%	9,809 23,056	10. 24.9
	92,550	107.20%	78,837	86.15%	9,133	9.98%	1,819	1.99%	3,932	4.30%	141	0.11%	4,245	4.64%	12,679	13.
	91,219	109.04%	54,562	59.81%	28,120	30.83%	2,065	2.26%	3,926	4.30%	144	0.16%	10,650	11.68%	36,657	40.
	91,341	112.59%	61,508	67.34%	11,772	12.89%	2,948	3.23%	3,127	3.42%	123	0.13%	23,367	25.58%	29,833	32.
	91,890	108.39% 105.84%	78,087 84,889	84.98% 94.19%	8,135	8.85% 2.25%	2,423	2.64% 1.55%	2,487 2,667	2.71% 2.96%	140 107	0.15% 0.12%	8,329 4,299	9.06% 4.77%	13,803 5,238	15. 5.8
	90,127 90,575	105.84%	84,889 73,099	94.19% 80.71%	2,026 4,100	2.25% 4.53%	1,399 2,074	1.55% 2.29%	2,667 5,833	2.96% 6.44%	107	0.12%	4,299 15,221	4.77% 16.80%	5,238 17,476	5.8 19.1
	91,376	107.91%		71.13%	24,904	27.25%	2,914	3.19%	936	1.02%	130	0.14%	4,719	5.16%	26,378	28.
	90,900	106.11%	64,998 86,368	95.01%	2,286	2.51%	1,982	2.18%	1,951	2.15%	95	0.10%	3,774	4.15%	4,532	4.9
	93,134	105.86%	87,889	94.37%	2,810	3.02%	2,145	2.30%	1,315	1.41%	106	0.11%	4,330	4.65%	5,245	5.6
	91,549 91,350	106.31% 105.46%	86,626 88,841	94.62% 97.25%	2,587 1,239	2.83% 1.36%	1,793 2,084	1.96% 2.28%	1,567 785	1.71% 0.86%	94 110	0.10% 0.12%	4,663 3,277	5.09% 3.59%	4,923 2,509	5.3 2.7
	92,520	106.05%	82,600	89.28%	5,452	5.89%	4,614	4.99%	1,765	1.91%	108	0.12%	3,582	3.87%	9,920	10.7
	89,410	104.82%	83,103	92.95%	4,091	4.58%	1,553	1.74%	1,388	1.55%	84	0.09%	3,502	3.92%	6,307	7.0
	90,438	108.91%	52,439	57.98%	34,611	38.27%	2,030	2.24%	1,542	1.71%	123	0.14%	7,751	8.57%	37,999	42.0
	91,439 90 544	105.81%	87,322 86,657	95.50% 95.71%	1,819 3 117	1.99% 3.44%	2,173	2.38%	2,294 871	2.51%	148 51	0.16%	2,995	3.28% 4 21%	4,117	4.5
	90,544 93,159	106.76% 105.46%	86,657 89,053	95.71% 95.59%	3,117 2,944	3.44% 3.16%	2,154 2,110	2.38% 2.26%	871 723	0.96% 0.78%	51 49	0.06% 0.05%	3,816 3,362	4.21% 3.61%	3,887 4,106	4.2 4.4
	92,049	104.26%	90,135	97.92%	738	0.80%	1,840	2.00%	495	0.54%	69	0.07%	2,692	2.92%	1,914	2.0
	89,375	104.56%	87,520	97.92%	881	0.99%	2,341	2.62%	592	0.66%	75	0.08%	2,043	2.29%	1,855	2.0
	91,751	105.17%	88,896	96.89%	2,018	2.20%	2,552	2.78%	758	0.83%	79	0.09%	2,196	2.39%	2,855	3.1
	92,604	106.12%	88,513 86 715	95.58%	2,360	2.55%	2,625	2.83%	779	0.84%	122	0.13%	3,872	4.18%	4,091 5,171	4.4
	91,886 93,426	107.05% 105.61%	86,715 89,606	94.37% 95.91%	1,959 1,192	2.13% 1.28%	3,341 3,116	3.64% 3.34%	740 1,254	0.81% 1.34%	91 150	0.10% 0.16%	5,516 3,346	6.00% 3.58%	5,171 3,820	5.6 4.0
	89,466	105.32%	86,878	97.11%	865	0.97%	2,971	3.32%	806	0.90%	156	0.17%	2,554	2.85%	2,588	2.8
	89,541	104.97%	87,735	97.98%	814	0.91%	2,507	2.80%	650	0.73%	110	0.12%	2,178	2.43%	1,806	2.0
	90,875	104.87%	88,776	97.69%	840	0.92%	3,223	3.55%	647	0.71%	100	0.11%	1,715	1.89%	2,099	2.3
	92,701 89,366	106.78% 106.08%	83,701 81,549	90.29% 91.25%	1,724 2,541	1.86% 2.84%	10,671 8,400	11.51% 9.40%	820 672	0.88% 0.75%	167 124	0.18% 0.14%	1,899 1,511	2.05% 1.69%	9,000 7,817	9.7 8.7
	89,300	106.08%	81,549 83,789	91.25%	2,541 2,604	2.84%	5,497	9.40% 6.15%	888	0.75%	124	0.14%	1,511	2.12%	5,621	6.2
										1.70%	130	0.14%				

Def. App. 203a

## 91,856 89,622 93,531 90,903 34,199 11,940 32,555 49,368 726 1,443 3,520 1,442 40,347 16,653 7,678 1,562 74,178 28,925 42,101 50,966 17,67 120 97 68 106 874 60,697 51,430 39,937 67.73% 54.99% 43.93% 1,207 1,431 1,184 32.27% 45.01% 56.07% 13.32% 34.81% 54.31% 1.61% 3.76% 1.59% 104.98% 104.43% 103.72% 2,04 18.58% 0.11% 1.35% 2.29% **RECEIVED by MSC** 993 686 8.21% 0.75% 0.12% 1.30% 92,74 93,62 57.76 58.64 979 1,074 1.17% 1,815 1,897 56,330 57,167 60.74% 61.06% 103.55 103.75 36,414 36,462 39.26% 38.94% 53,565 54,902 06% 15% 2.26% 81 77 1,088 1,03 1.96% 2.03% 52.49% 54.35% 68.19% 44.09% 50.84% 92,948 92,670 90,818 104.17% 105.07% 104.34% 45,392 44,853 46,988 2.40% 4.90% 17.10% 1,126 1,102 960 44,163 47.51% 48.84% 1.209 1.30% 2.233 105 0.11% 1.21% 2.599 2.80% 48,785 1,756 872 1,043 2,743 1,425 2,511 42,304 45.65% 31.81% 48.409 4,537 1.19% 2.96% 1.57% 50,366 61,928 78 .89% 10 11 39,919 90,53 103.63% 50,615 44,809 55.91% 49.16% 36,03 39.80% 1.15% 2,59 2.86% 85 0.09% 936 887 1.03% 2.77% 2.19% 46,336 44,818 44,155 48.62% 47.12% 43.50% 1.39% 91,145 103.69% 44,312 1,269 1,167 1.28% 68 0.07% 0.97% 2,000 2,000 2,219 1,963 2,221 4,831 2.45% 2.17% 2.45% 5.23% 1,864 1,499 1,437 1,267 1.78% 4.70% 10.80% 2.83% 0.08% 0.09% 0.09% 0.08% 1.34% 1.10% 1.19% 49.45% 48.85% 57.22% 15.27% 12 90,630 90,393 105.37% 104.37% 45,812 46,238 50.55% 51.15% 42,705 39,325 1,616 4,249 1,213 992 2.06% 1.66% 70 81 13 104.56 104.24 38,739 78,211 42.78% 84.73% 41,339 7,968 45.65% 1.59% 1.37% 9,784 2,608 1,080 51,816 14,090 90,555 92,301 14 15 16 37.99% 49.18% 39.51% 63.72% 79.03% 60.25% 93,035 104.05% 35,347 44,621 54,949 59.06% 1,40 1.51% 1,354 1.46% 62 0.07% 1,019 1.10% 2,668 2,812 2.87% 57,688 62.01% 90,737 92,169 90,931 93,017 104.59% 104.11% 103.75% 103.80% 50.82% 60.49% 36.28% 17 42,462 46.80% 1,63 1.80% 2,241 2.47% 53 0.06% 1,082 1.19% 3.10% 46,116 4,577 8,186 7,900 18 19 36,415 50,028 54.28 1,20 1.31% 4.97% 0.06% 1,177 2,499 2.71% 55,754 32,992 20 21 22 73,509 10,327 11.10% 918 0.99% 8.49% 0.09% 1,328 1.43% 2,489 2.68% 19,508 20.97% 82 29.01% 6.73% 17.01% 93,876 91,654 103.68% 103.54% 56,658 80,969 60.35% 88.34% 7,884 2,563 8.40% 863 1,100 0.92% 27,235 6,170 0.08% 1,347 1,128 1.43% 1.23% 3,266 2,920 4,003 3,377 4,044 3,853 3.48% 3.19% 37,218 10,685 39.65% 11.66% 90,719 91,480 90,562 91,723 105.00% 104.52% 105.51% 105.96% 68,125 59,653 62,363 50,877 75.09% 65.21% 68.86% 55.47% 5,258 10,313 20,595 0.14% 0.07% 0.08% 0.12% 24.91% 34.79% 31.14% 44.53% 5.80% 864 0.95% 15.427 127 1,453 1.60% 4.41% 22.594 23 24 25 26 27 28 29 30 31 32 33 11.27% 22.74% 40.79% 1,233 2,120 2,176 19,68 5,059 1,477 1,280 1,291 1,280 1.41% 1.43% 1.40% 3.69% 4.47% 4.20% 68 73 113 1.35% 21.52<sup>4</sup> 5.59% 31,827 1/18/2022 10:30:25 PM 37,410 2.37% 1.61% 40,846 80,114 73,097 90,457 91,598 104.62% 105.23% 88.57% 79.80% 3,642 10,188 4.03% 2,173 2,329 2.40% 2.54% 1,601 1.77% 3.97% 80 82 0.09% 1,266 1,336 .40% 5,757 5,716 6.36% 6.24% 10,343 18,501 11.43% 20.20% 105.23% 105.65% 104.90% 105.56% 107.31% 105.85% 2.54% 2.61% 2.45% 2.48% 2.07% 1.42% 0.09% 0.09% 0.12% 0.19% 0.15% 1.46% 1.58% 1.49% 1.42% 1.75% 1.58% 6.68% 4.06% 4.03% 7.17% 5.90% 20,831 7,430 20,775 37,596 24,424 20.20% 22.50% 7.95% 22.34% 40.82% 26.34% 92,583 93,460 92,978 71,752 86,030 72,203 77.50% 92.05% 77.66% 14,189 3,497 16,705 15.33% 3.74% 17.97% 2,420 2,289 2,306 1,721 984 1,757 1.86% 1.05% 1.89% 1,459 1,388 1,320 6,184 3,799 3,748 87 52 31.87% 9.67% 4,685 5.09% 13.48% 54,496 68,306 29,351 8,963 176 1,608 1,468 6,601 5,469 92,092 92,730 59.18% 73.66% 1,903 1,314 12,500 135 87.30% 93.22% 88.65% 83.83% 71.55% 92,371 93,023 104.38% 103.85% 104.85% 105.98% 80,641 86,715 79,465 76,665 3,464 1,910 3,781 7,502 3.75% 2.05% 4.22% 8.20% 2,100 2,031 2.27% 2.18% 2.15% 3.02% 863 853 0.93% 0.92% 1.14% 2.50% 0.04% 0.08% 1.20% 1.20% 8,205 3,903 6,274 5,983 8.88% 4.20% 7.00% 6.54% 11,730 6,308 10,169 14,791 12.70% 6.78% 34 38 70 1,106 1,118 35 36 37 0.08% 0.16% 1,930 2,765 1,020 1.60% 11.35% 16.17% 89,634 91,456 1,43 1,58 104.42% 73 19,142 1,753 1,379 6,196 38 39 40 93,422 66,844 20.499 1.88% 2,165 2.32% 0.08% 1.489 6.63% 26,578 28.45% 14.11% 76 90,27 105.139 77,535 85.89 2,674 2.96% 2,80 3.11% 1,34 1.49% 9,692 10.749 12,735 0.859 4.57% 8.66% 3.41% 5.52% 6.67% 90,211 91,872 91,192 92,518 89,974 105.13% 105.27% 107.10% 105.21% 104.12% 106.44% 85.89% 82.74% 65.58% 91.18% 92.34% 73.15% 2,674 8,142 23,809 4,460 1,456 16,598 2.96% 9.03% 25.92% 4.89% 1.57% 18.45% 2,803 0.85% 5.64% 3.01% 1.64% 0.97% 4.28% 14.11% 17.26% 34.42% 8.82% 7.66% 26.85% 1.75% 5,088 2,769 0.10% 1,299 4,124 74,645 93 119 58 79 103 1.44% 15,566 60,253 83,153 85,434 65,814 1.59% 1.54% 1.43% 1.33% 31,619 8,039 7,084 24,160 41 42 43 44 45 46 47 48 49 50 2,270 2,038 2,206 2.49% 2.20% 2.45% 1,500 900 3,849 0.06% 0.09% 0.11% 1,400 1,319 1,199 3,106 5,105 5,998 104.08% 106.04% 105.48% 104.48% 104.17% 85,414 73,699 80,312 80,901 79,419 88,613 94.26% 80.95% 87.96% 87.58% 85.17% 95.14% 2,021 13,785 4,068 2,368 6,168 2.23% 15.14% 4.46% 2.56% 6.61% 2,206 2,147 2,023 1,587 1,614 1,494 2.37% 2.22% 1.74% 1.75% 1.60% 2.24% 0.05% 0.07% 0.12% 0.08% 0.12% 5,198 17,342 10,990 11,472 13,828 4,526 5.74% 19.05% 12.04% 12.42% 14.83% 4.86% 90,612 91,041 91,302 92,373 847 1,550 4,966 7,422 4,748 1,194 0.93% 1.70% 5.44% 8.03% 5.09% 1.28% 1,04 1,21 1,45 1,36 1,43 1.15% 1.34% 2,795 4,202 48 63 108 70 112 3.08% 4.62% 4.17% 3.00% 4.03% 3.01% 4,202 3,811 2,774 3,758 1.34% 1.59% 1.47% 1.54% 93,24 93,13 104.149 2,08 145 1,26 1.36% 2,808 93.35% 89.18% 44.94% 77.66% 1,765 3,386 34,111 7,385 104.54% 104.50% 104.99% 104.44% 85,418 81,237 41,820 72,184 1,890 1,702 1,574 1,213 2.04% 2.45% 2.82% 10.75% 1,544 1,344 1,110 1,435 1.69% 1.48% 1.19% 1.54% 3,123 5,252 16,376 4,793 3.41% 5.77% 17.60% 5.16% 91,507 91,098 2.07% 1.87% 0.07% 6.65% 10.82% 51 52 53 54 55 56 1.93% 1,864 61 43 83 6,089 2,229 2,622 9,996 9,861 51,236 20,765 3.72% 93,056 92,949 0.09% 0.07% 55.06% 22.34% 36.66% 7.95% 1.69% 1.31% 68 91,805 90,410 104.09% 103.79% 71,134 64,371 77.48% 71.20% 3,833 3,730 4.18% 4.13% 1.13% 1.03% 13,782 20,561 69 70 1,404 1,122 4,303 3,060 4.69% 3.38% 20,671 26,039 22.52% 28.80% 1,039 927 15.01% 22.74% 0.08% 1.53% 1.24% 69,777 74,192 80,624 79,311 72,733 73,822 89,693 90,454 89,336 92,742 103.53% 104.26% 103.54% 104.19% 77.80% 82.02% 90.25% 85.52% 5,336 8,442 2,894 7,647 5.95% 9.33% 3.24% 8.25% 856 1,245 1,036 1,244 0.95% 1.38% 1.16% 1.34% 13,481 6,704 4,161 4,088 15.03% 7.41% 4.66% 4.41% 0.09% 0.10% 0.07% 0.07% 997 1,177 1,117 1,28 1.11% 1.30% 1.25% 1.38% 2,332 2,460 2,602 2,994 2.60% 2.72% 2.91% 3.23% 19,916 16,262 8,712 13,431 22.20% 17.98% 9.75% 14.48% 82 88 57 58 59 60 61 61 66 93,156 90,539 104.80% 104.94% 78.08% 81.54% 17.17% 14.91% 1,570 1,901 1.69% 3,229 3.47% 2.15% 64 82 0.07% 1,167 1,193 1.25% 1.32% 2,870 2,564 3.08% 2.83% 20,423 21.92% 18.46% 15,994 13,502 62 18.46% 7.20% 9.25% 8.31% 7.79% 8.00% 90,638 91,060 104.94% 104.42% 105.17% 103.92% 84,114 82,637 92.80% 90.75% 3,677 5,077 2,771 1,786 4.06% 2.17% 1,237 936 1.36% 1.03% 0.74% 0.06% 1,195 1.32% 2,399 3,711 4,674 4,098 2.65% 4.08% 6,524 8,423 7,722 1,967 2,101 57 63 64 65 66 67 1,251 1,394 1,495 5.03% 4.41% 3.56% 85,170 85,769 85,390 91.69% 92.21% 92.00% 92,892 2.98% 1,892 1,708 2.04% 1.84% 689 0.09% 1.35% 1.50% 88 54 59 7,245 7,426 93,014 104.28% 104.90% 1.92% 2,182 2.35% 92,816 3,858 4.16% 2,475 2.67% 784 0.849 0.06% 1.61% 3,301 3,831 3,324 4,417 2,816 3.567% 4.12% 3.62% 4.87% 3.06% 93,065 91,698 90,738 91,966 105.13% 105.23% 81,046 67,355 37,335 87,551 87.09% 73.45% 41.15% 95.20% 2.42% 2.42% 2.23% 2.26% 1.42% 1.26% 1.21% 1.38% 12,019 24,343 53,403 4,415 7,154 21,168 7.69% 23.08% 2,250 2,215 2,143 1,194 2.30% 1.30% 0.10% 1,323 1,158 12.91% 26.55% 68 92 81 69 70 71 72 58.85% 4.80% 106.03% 104.20% 50,480 1,269 55.63% 1.38% 2,021 2,083 773 742 0.85% 0.81% 0.10% 0.11% 1,099 1,273 89 99 77 92,844 91,543 90,782 93,554 92,354 92,594 1,17 104.75% 83,181 89.59% 5,592 6.02% 2,121 2.28% 1,810 1.95% 0.08% 1.27% 3,295 3.55% 9,663 10.41% 104.73% 104.13% 107.15% 104.81% 104.82% 106.02% 1,380 2,119 1,613 1,879 1,994 1.21% 1.47% 1.40% 1.17% 1.63% 8.51% 5.10% 6.94% 3.11% 3,976 10,006 4,791 5,780 4.34% 11.02% 5.12% 73 74 74,629 58,994 81.52% 64.98% 6,332 20,079 .519 7.786 112 0.12% 0.13% 1.11 16,914 31,788 18.48% 35.02% 7,786 4,626 6,496 2,875 22.129 2.33 1,333 116 89 102 83.73% 82.46% 74.89% 91.02% 5,424 8,934 12,772 5.80% 9.67% 13.79% 2.33% 1.72% 2.03% 2.15% 1,309 1,083 1,508 15,219 16,202 23,251 16.27% 17.54% 25.11% 8.98% 78,335 76,152 69,343 75 76 77 0.10% 6.26% 10.61% 4.31% 2.83% 9,822 3,977 2,617 113 0.12% 78 79 80 92.26 103.62 83.977 4.031 4.37% 1.693 1.83% 781 0.85% 65 1.079 1.17% 8.287 90,952 92,350 104.15% 78,382 5.61% 1,470 3,941 8,535 123 81 1,119 4,590 7,053 12,570 13.82% 28.75% 86.18% 71.25% 5,099 12.803 1.62% 1.19% 4.33% 9.24% 0.14% 1.23% 1.27% 5.05% 7.64% 91,516 104.90 75,731 82.75% 8,673 9.48% 1,468 3,846 4.20% 119 0.13% 1,136 1.24% 5,026 5.49% 15,785 17.25% 81 82 83 84 .60% 104.93% 104.58% 91,219 91,341 49,224 50,800 53.96% 55.62% 26,805 10,378 29.39% 11.36% 1,310 1,409 .44% 3,839 3,006 4.21% 3.29% 107 86 0.12% 1,096 1,022 1.20% 1.12% 13,338 28,823 14.62% 31.56% 41,995 40,541 46.04% 44.38% 11.25% 5.70% 22.19% 6.83% 4.62% 2.03% 1.25% 1.18% 2.68% 1.91% 91,890 90,127 90,575 91,376 79.70% 90.49% 69.44% 67.12% 8.14% 2.01% 3.71% 2,395 2,572 5,494 875 20.30% 9.51% 30.56% 32.88% 118 105.07 73,240 7,482 1,86 2.61% 0.13% 1,10 1.20% 10,341 18,650 1.20% 1.16% 1.01% 1.47% 103.56% 103.75% 105.83% 104.16% 81,556 62,892 61,329 83,407 2.85% 6.07% 0.96% 2.08% 0.11% 0.16% 0.12% 1,043 911 1,345 8,571 27,683 30,047 1,810 3.363 1,123 5,138 85 86 87 88 90 91 92 93 94 95 96 97 98 99 97 146 111 3,363 24,353 2,117 26.65% 2,453 6,240 90,900 91.76% 1,249 1.37% 4,199 7,493 8.24% 2.33% 1,736 1,887 84 0.09% 93,134 91,549 91,350 92,520 89,410 90.89% 91.18% 94.63% 85.43% 89.26% 50.53% 5,165 5,205 3,465 5,400 4,694 11,982 5.55% 5.69% 3.79% 5.84% 5.25% 104.109 104.219 84,646 83,474 2,663 2,348 1,876 1,495 1,262 1,498 1.36% 1.64% 1,240 1,300 1.34% 1.43% 8,488 8,075 9.11% 8.82% 2.86% 2.56% 2.01% 1.63% 0.10% 104.05% 104.33% 102.96% 104.79% 86,446 79,038 79,803 1,117 5,229 3,906 33,014 1.22% 5.65% 4.37% 728 1,734 1,354 1,339 1,000 914 1,100 1.47% 1.08% 1.02% 4,904 13,482 9,607 44,741 1,873 2.05% 4.36% 1.48% 0.80% 1.87% 1.51% 0.09% 5.37% 14.57% 10.74% 84 92 64 4,034 1,323 1,414 0.10% 45,697 0.12% 13.25 90,43 36.50% .56% 1,454 1.619 105 1.22% 49.47% 45,697 85,090 82,384 86,220 87,889 86,134 1.56% 2.20% 2.02% 2.04% 1.79% 2.44% 1.22% 1.57% 1.21% 1.46% 1.11% 1.24% +9.47% 6.94% 9.01% 7.45% 4.52% 3.63% 91,439 90,544 93,159 104.40% 104.43% 103.85% 93.06% 90.99% 92.55% 1.88% 3.10% 3.02% 0.12% 2,844 5,563 3,751 3.11% 6.14% 4.03% 2.45% 0.93% 0.72% 1,722 2,805 2,009 1,830 2,240 838 669 468 538 1,432 1,094 1,357 1,024 1,107 129 39 42 6,349 8,160 2,805 2,810 648 791 1,830 1,897 1,644 2,177 6,939 4,160 3,241 92,049 89,375 103.00<sup>4</sup> 103.69<sup>4</sup> 95.48% 96.37% 0.51% 0.60% 56 63 0.06% 3,084 1,867 3.35% 2.09% 104.33% 104.45% 104.48% 104.20% 104.24% 104.24% 95.22% 91.69% 89.69% 93.63% 91,751 92,604 91,886 93,426 87,368 84,910 82,415 87,474 2,364 2,317 2,887 2,810 2.58% 2.50% 3.14% 3.01% 703 740 684 1,224 2,010 5,072 6,712 3,141 100 101 102 103 104 105 1,907 2.08% 0.77% 58 0.06% 1,312 1.43% 2.19% 4,383 4.78% 2,184 1,830 1,121 0.80% 0.74% 1.31% 0.12% 0.09% 0.14% 1,390 1,390 1,398 1.50% 1.52% 1.55% 5.48% 7.30% 3.36% 8.31% 10.31% 6.37% 2.36% 7,694 9,471 81 127 5,952 1.20% 4,251 3,200 89,466 89,541 85,215 86,341 95.25% 96.43% 780 743 0.87% 2,769 3.10% 754 591 0.84% 0.66% 0.14% 1,310 .46% .34% 2,307 1,899 2.58% 2.12% 4.75% 3.57% 128 89 90,875 92,701 89,366 89,410 96.63% 96.63% 88.97% 90.02% 92.30% 105 106 107 108 109 87,815 82,472 80,445 82,523 782 1,659 2,404 2,516 0.86% 1.79% 2.69% 2.81% 3,103 10,443 8,128 5,327 3.41% 11.27% 9.10% 5.96% 572 785 624 842 1,177 1,119 872 1,075 1.30% 1.21% 0.98% 1.20% 1,218 1,644 1,510 1,648 1.34% 1.77% 1.69% 1.84% 3,060 10,229 8,921 6,887 3.37% 11.03% 9.98% 7.70% 104.279 0.63% 0.09% 86 138 90 75 106.00% 105.27% 105.14% 0.85% 0.70% 0.94% 0.15% 0.10% 0.08%

1,49

1.64%

2.87

103.85

86,45

	91,856	90.10%	21,598	23.51%	33,925	36.93%	2,066	2.25%	464	0.51%	83	0.09%	24,625	26.81%	70,258	76.
	89,622	90.41%	60,517	67.52%	10,969	12.24%	874	0.98%	1,115	1.24%	67	0.07%	7,489	8.36%	29,105	32.
	93,531	94.49%	49,222	52.63%	31,951	34.16%	672	0.72%	2,276	2.43%	40	0.04%	4,221	4.51%	44,309	47.
	90,903	97.41%	37,645	41.41%	48,690	53.56%	468	0.51%	511	0.56%	39	0.04%	1,198	1.32%	53,258	58
	92,744 93,629	97.36% 97.05%	34,411 34,222	37.10% 36.55%	52,719 53.963	56.84% 57.63%	609 524	0.66%	1,573 1,202	1.70% 1.28%	56 51	0.06%	930 907	1.00%	58,333 59,407	62 63
	92,948	96.39%	41,874	45.05%	44,481	47.86%	613	0.66%	1,530	1.65%	68	0.07%	1,025	1.10%	51,074	54
	92,670	95.90%	39,378	42.49%	43,375	46.81%	747	0.81%	4,014	4.33%	56	0.06%	1,301	1.40%	53,292	57
	90,818	97.03%	26,201	28.85%	46,272	50.95%	547	0.60%	14,076	15.50%	55	0.06%	969	1.07%	64,617	71
	90,534	96.59%	48,702	53.79%	35,267	38.95%	504	0.56%	1,995	2.20%	48	0.05%	927	1.02%	41,832	46
~~~	91,145	96.65%	42,553	46.69%	43,409	47.63%	476	0.52%	828	0.91%	44	0.05%	781	0.86%	48,592	53
	90,630 90,393	95.22% 96.16%	42,255 43.517	46.62% 48.14%	41,062 38,108	45.31% 42.16%	569 525	0.63%	1,313 3.848	1.45% 4.26%	55 44	0.06%	1,042 877	1.15% 0.97%	48,375 46,876	53 51
~~~	90,555	96.11%	35,885	39.63%	39,998	44.17%	559	0.62%	9,344	10.32%	48	0.05%	1,195	1.32%	54,670	60
	92,301	94.29%	76,059	82.40%	7,247	7.85%	377	0.41%	1,674	1.81%	53	0.06%	1,621	1.76%	16,242	17
	93,035	96.65%	33,035	35.51%	53,899	57.93%	672	0.72%	997	1.07%	31	0.03%	1,281	1.38%	60,000	64
	90,737	96.00%	42,052	46.34%	41,327	45.55%	665	0.73%	1,729	1.91%	27	0.03%	1,312	1.45%	48,685	53
•••	92,169	96.89%	34,102	37.00%	48,992	53.15%	543	0.59%	4,113	4.46%	58	0.06%	1,499	1.63%	58,067 35,285	63
• • •	90,931 93,017	96.03% 95.52%	55,646 70,881	61.20% 76.20%	22,948 9,825	25.24% 10.56%	334 232	0.37%	7,293 6,866	8.02% 7.38%	34 47	0.04%	1,065 1,003	1.17% 1.08%	22,136	38 23
	93,876	95.19%	54,234	57.77%	7,384	7.87%	305	0.32%	26,203	27.91%	40	0.04%	1,194	1.27%	39,642	42
~~~	91,654	95.18%	78,693	85.86%	2,218	2.42%	237	0.26%	5,267	5.75%	24	0.03%	801	0.87%	12,961	14
	90,719	93.97%	65,568	72.28%	4,469	4.93%	244	0.27%	13,627	15.02%	94	0.10%	1,247	1.37%	25,151	27
	91,480	94.53%	56,810	62.10%	9,558	10.45%	367	0.40%	18,624	20.36%	35	0.04%	1,083	1.18%	34,670	37
	90,562	94.17% 94.44%	59,176	65.34% 51.67%	19,223	21.23%	658 756	0.73%	4,550	5.02% 1.20%	52 68	0.06%	1,623 1,693	1.79% 1.85%	31,386 44,330	34 48
~~~	91,723 90,457	94.44% 93.42%	47,393 78,248	86.50%	35,605 2,997	38.82% 3.31%	756 569	0.82%	1,105 1,129	1.20%	43	0.07%	1,693	1.65%	12,209	40
	91,598	92.78%	70,492	76.96%	9,257	10.11%	445	0.49%	3,169	3.46%	41	0.04%	1,583	1.73%	21,106	23
	92,583	93.07%	68,970	74.50%	12,873	13.90%	582	0.63%	1,363	1.47%	51	0.06%	2,329	2.52%	23,613	25
	93,460	93.99%	83,089	88.90%	2,575	2.76%	391	0.42%	621	0.66%	29	0.03%	1,136	1.22%	10,371	11
	92,978	94.08%	68,856	74.06%	15,510	16.68%	537	0.58%	1,284	1.38%	44	0.05%	1,244	1.34%	24,122	25
	92,092 92,730	92.64% 92.80%	50,395 64.685	54.72% 69.76%	27,029 7,807	29.35% 8.42%	769 456	0.84%	3,593 10,847	3.90% 11.70%	114 86	0.12%	3,410 2,170	3.70% 2.34%	41,697 28,045	45
•••	92,730 92,371	92.80%	80,070	86.68%	2,685	8.42% 2.91%	456 528	0.49%	492	0.53%	19	0.09%	2,170	2.34%	28,045 12,301	13
	93,023	95.01%	84,457	90.79%	1,451	1.56%	386	0.41%	500	0.54%	34	0.04%	1,557	1.67%	8,566	9.
	89,634	93.88%	76,569	85.42%	2,605	2.91%	621	0.69%	667	0.74%	26	0.03%	3,664	4.09%	13,065	14
	91,456	92.90%	73,143	79.98%	6,089	6.66%	929	1.02%	1,820	1.99%	118	0.13%	2,861	3.13%	18,313	20
•••	93,422 90,270	94.39% 92.57%	64,414 75,397	68.95% 83.52%	18,213 1,716	19.50% 1.90%	624 1,121	0.67% 1.24%	1,690 439	1.81% 0.49%	50 61	0.05% 0.07%	3,186 4,830	3.41% 5.35%	29,008 14,873	31 16
•••	90,270	92.57% 93.76%	75,397	83.52% 79.13%	6,893	7.64%	437	0.48%	439 4,219	4.68%	31	0.07%	4,830	5.35% 1.78%	14,873	20
	91,872	92.58%	56,379	61.37%	21,196	23.07%	1,019	1.11%	2,132	2.32%	65	0.07%	4,262	4.64%	35,493	38
	91,192	94.00%	79,672	87.37%	3,348	3.67%	445	0.49%	1,031	1.13%	32	0.04%	1,194	1.31%	11,520	12
	92,518	94.49%	83,262	90.00%	856	0.93%	608	0.66%	510	0.55%	25	0.03%	2,155	2.33%	9,256	10
	89,974 90,612	92.79% 95.19%	62,409 83,020	69.36% 91.62%	14,139 1,303	15.71% 1.44%	788 493	0.88% 0.54%	3,480 544	3.87% 0.60%	41 28	0.05%	2,634 870	2.93% 0.96%	27,565 7,592	30 8.
•••	91,041	93.26%	70,025	76.92%	11,597	12.74%	580	0.64%	1,194	1.31%	23	0.03%	1,482	1.63%	21,016	23
	91,302	93.34%	76,784	84.10%	3,126	3.42%	345	0.38%	3,704	4.06%	81	0.09%	1,178	1.29%	14,518	15
	92,373	94.40%	77,787	84.21%	1,781	1.93%	299	0.32%	6,463	7.00%	42	0.05%	824	0.89%	14,586	15
~~~	93,247	94.47%	76,725	82.28%	5,582	5.99%	337	0.36%	4,010	4.30%	65	0.07%	1,370	1.47%	16,522	17
	93,139	94.68%	85,800	92.12%	461	0.49%	333	0.36%	725	0.78%	103	0.11%	761	0.82%	7,339	7.
~~~	91,507 91,098	94.12% 93.69%	82,396 78,955	90.04% 86.67%	1,295 2,734	1.42% 3.00%	321 353	0.35%	1,227 1,569	1.34% 1.72%	28 33	0.03%	859 1,703	0.94% 1.87%	9,111 12,143	9. 13
	93,056	92.29%	41,233	44.31%	32,961	35.42%	985	1.06%	2,284	2.45%	61	0.07%	8,360	8.98%	51,823	55
	92,949	94.09%	69,591	74.87%	6,663	7.17%	307	0.33%	9,005	9.69%	50	0.05%	1,838	1.98%	23,358	25
	91,805	94.07%	68,408	74.51%	3,328	3.63%	333	0.36%	12,730	13.87%	42	0.05%	1,522	1.66%	23,397	25
~~~	90,410	95.11%	61,821	68.38%	3,272	3.62%	239	0.26%	19,453	21.52%	49	0.05%	1,154	1.28%	28,589	31
	89,693 90,454	95.95% 95.23%	67,466 71,374	75.22% 78.91%	4,875 7,677	5.44% 8.49%	265 263	0.30%	12,479 5,753	13.91% 6.36%	31 30	0.03%	948 1,041	1.06% 1.15%	22,227 19,080	24 21
• • •	89,336	95.46%	78,301	87.65%	2,525	2.83%	222	0.25%	3,365	3.77%	32	0.04%	831	0.93%	11,035	12
	92,742	94.87%	76,496	82.48%	6,932	7.47%	235	0.25%	3,314	3.57%	33	0.04%	974	1.05%	16,246	17
~~~	93,156	94.84%	69,550	74.66%	14,633	15.71%	380	0.41%	2,637	2.83%	34	0.04%	1,112	1.19%	23,606	25
	90,539	94.70%	70,551	77.92%	12,467	13.77%	428	0.47%	1,418	1.57%	59	0.07%	813	0.90%	19,988	22
	90,638 91,060	94.92% 93.90%	81,158 79,737	89.54% 87.57%	3,000 3,682	3.31% 4.04%	356 496	0.39% 0.54%	728 587	0.80% 0.64%	23 29	0.03%	772 970	0.85%	9,480 11,323	10 12
~~	92,892	93.90% 94.60%	82,920	89.26%	2,264	2.44%	383	0.54%	378	0.41%	69	0.03%	1,860	2.00%	9,972	10
	93,014	94.14%	82,974	89.21%	1,229	1.32%	301	0.32%	1,571	1.69%	32	0.03%	1,452	1.56%	10,040	10
	92,816	94.18%	82,406	88.78%	3,197	3.44%	490	0.53%	422	0.45%	21	0.02%	881	0.95%	10,410	11
	93,065	94.01%	78,123	83.94%	6,101	6.56%	491	0.53%	1,697	1.82%	41	0.04%	1,039	1.12%	14,942	16
	91,698	94.49%	64,293	70.11%	19,795	21.59%	595	0.65%	837	0.91%	47	0.05%	1,083	1.18%	27,405	29
	90,738	94.74% 94.92%	34,241 85,044	37.74% 92.47%	48,197 702	53.12% 0.76%	940 354	1.04% 0.38%	550 441	0.61% 0.48%	59 48	0.07%	1,980 705	2.18%	56,497 6,922	62 7.
	91,966 92,844	94.92% 94.24%	85,044 80,267	92.47% 86.45%	702 4,754	0.76% 5.12%	354 345	0.38%	441 1,235	0.48%	48 36	0.05%	705 859	0.77%	12,577	13
	91,543	94.91%	72,493	79.19%	5,509	6.02%	373	0.41%	6,970	7.61%	69	0.08%	1,472	1.61%	19,050	20
	90,782	91.10%	56,205	61.91%	17,729	19.53%	854	0.94%	4,081	4.50%	67	0.07%	3,762	4.14%	34,577	38
<b>.</b>	93,554	93.84%	75,609	80.82%	4,398	4.70%	439	0.47%	5,617	6.00%	40	0.04%	1,686	1.80%	17,945	19
	92,354 92,594	93.72% 91.71%	73,944 67,188	80.07% 72.56%	7,763 11,157	8.41% 12.05%	507 845	0.55% 0.91%	2,464 2,085	2.67% 2.25%	43 87	0.05%	1,830 3,559	1.98% 3.84%	18,410 25,406	19 27
	92,594 92,264	91.71% 95.31%	82,377	72.56% 89.28%	3,435	3.72%	645 418	0.91%	2,085 415	0.45%	87 37	0.09%	1,253	3.84% 1.36%	25,406 9,887	10
	90,952	94.80%	76,188	83.77%	4,269	4.69%	448	0.49%	3,303	3.63%	58	0.06%	1,952	2.15%	14,764	16
	92,350	94.28%	63,481	68.74%	11,861	12.84%	560	0.61%	7,701	8.34%	49	0.05%	3,414	3.70%	28,869	31
	91,516	94.00%	73,025	79.79%	7,528	8.23%	465	0.51%	3,033	3.31%	49	0.05%	1,929	2.11%	18,491	20
	91,219 91 341	93.61% 90.00%	47,816 51,490	52.42% 56.37%	25,823 9 564	28.31%	995 1,581	1.09%	3,191 2,627	3.50%	84 69	0.09%	7,482	8.20% 18.47%	43,403 39,851	47
	91,341 91,890	90.00% 93.01%	51,490 71,258	56.37% 77.55%	9,564 6,270	10.47% 6.82%	1,581 761	1.73% 0.83%	2,627	2.88% 1.94%	69 76	0.08%	16,872 5,322	18.47% 5.79%	20,632	43
	90,127	94.75%	80,012	88.78%	1,252	1.39%	287	0.32%	1,992	2.21%	33	0.04%	1,820	2.02%	10,115	11
	90,575	90.56%	64,083	70.75%	2,908	3.21%	902	1.00%	4,872	5.38%	98	0.11%	9,161	10.11%	26,492	29
<b>.</b>	91,376	93.54%	58,641	64.18% 89.32%	22,709	24.85%	1,023	1.12%	533 1,354	0.58% 1.49%	62	0.07%	2,503	2.74%	32,735	35 10
	90,900	94.46%	81,190	89.32%	1,448	24.85%	448	0.49%		1.49%	42	0.05%	1,380	1.52%	9,710	
	93,134 91,549	94.60% 94.36%	82,753 81,282	88.85% 88.79%	1,925 1,662	2.07% 1.82%	567 413	0.61% 0.45%	805 886	0.86%	38 30	0.04%	2,020 2,110	2.17% 2.30%	10,381 10,267	11
	91,349	94.30%	84,170	92.14%	583	0.64%	413	0.43%	379	0.97%	58	0.05%	1,195	1.31%	7,180	7.
	92,520	94.67%	77,464	83.73%	4,461	4.82%	2,541	2.75%	1,348	1.46%	75	0.08%	1,700	1.84%	15,056	16
	89,410	95.64%	79,094	88.46%	3,534	3.95%	319	0.36%	1,083	1.21%	44	0.05%	1,438	1.61%	10,316	11
	90,438	92.98%	45,474	50.28%	32,035	35.42%	755	0.83%	1,214	1.34%	75	0.08%	4,540	5.02%	44,964	49
	91,439	94.63%	82,319	90.03%	1,064	1.16%	417	0.46%	1,778	1.94%	95	0.10%	860	0.94%	9,120	9.
	90,544 93,159	93.83% 94.91%	80,953 84,215	89.41% 90.40%	1,697	1.87% 2.39%	456 397	0.50%	524 490	0.58% 0.53%	17 16	0.02% 0.02%	1,308 1,067	1.44%	9,591 8,944	10 9.
	93,159 92,049	94.91% 96.11%	86,463	90.40% 93.93%	2,231 370	0.40%	397 350	0.43%	490 302	0.33%	29	0.02%	952	1.15% 1.03%	0,944 5,586	9. 6.
	89,375	95.87%	83,745	93.70%	407	0.46%	545	0.61%	360	0.40%	28	0.03%	602	0.67%	5,630	6.
	91,751	95.40%	84,564	92.17%	1,162	1.27%	648	0.71%	473	0.52%	37	0.04%	651	0.71%	7,187	7.
	92,604	94.44%	83,233	89.88%	1,564	1.69%	633	0.68%	466	0.50%	54	0.06%	1,506	1.63%	9,371	10
	91,886	93.51% 94.93%	80,628	87.75%	1,217	1.32%	1,179	1.28%	413 792	0.45%	43	0.05%	2,444	2.66%	11,258	12
	93,426 89,466	94.93% 95.27%	84,738 82,512	90.70% 92.23%	587 381	0.63%	1,397 997	1.50% 1.11%	792 459	0.85% 0.51%	65 70	0.07%	1,110 818	1.19% 0.91%	8,688 6,954	9.
	89,466 89,541	95.27% 95.64%	82,512 83,686	92.23% 93.46%	381 342	0.43%	997 576	0.64%	363	0.51%	46	0.08%	818 626	0.91%	5,855	6.
	90,875	95.68%	84,710	93.22%	328	0.36%	1,083	1.19%	367	0.40%	40	0.05%	414	0.46%	6,165	6.
	92,701	93.87%	77,837	83.97%	1,257	1.36%	6,701	7.23%	537	0.58%	87	0.09%	595	0.64%	14,864	16
	89,366	94.63%	76,583	85.70%	2,104	2.35%	5,036	5.64%	349	0.39%	46	0.05%	445	0.50%	12,783	14
	89,410	94.54%	78,763	88.09%	2,073	2.32%	2,606	2.91%	516	0.58%	65	0.07%	509	0.57%	10,647	11.

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	91,856	98.09%	15,422	16.79%	32,847	35.76%	522	0.57%	414	0.45%	44	0.05%	506	0.55%	40,347	43.92%	20.040	• • • •
	89,622 93,531	95.80% 96.55%	56,704 47,867	63.27% 51.18%	10,525 31,447	11.74% 33.62%	393 397	0.44%	1,065	1.19% 2.41%	52 23	0.06%	462 636	0.52%	16,653 7,678	18.58% 8.21%	32,918 45,664	
	93,531 90,903	96.55% 97.72%	47,867 37,347	51.18% 41.08%	31,447 48,349	33.62% 53.19%	397 407	0.42%	2,258	2.41% 0.55%	23 32	0.02%	638	0.68%	1,562	8.21% 1.72%	45,004 53,556	
	92,744	98.12%	34,016	36.68%	52,425	56.53%	561	0.60%	1,550	1.67%	49	0.05%	588	0.63%	1,815	1.96%	58,728	
	93,629	97.75%	33,803	36.10%	53,581	57.23%	461	0.49%	1,175	1.25%	45	0.05%	563	0.60%	1,897	2.03%	59,826	
	92,948	97.37%	41,155	44.28%	44,151	47.50%	520	0.56%	1,490	1.60%	55	0.06%	535	0.58%	2,599	2.80%	51,793	
	92,670	96.75%	38,628	41.68%	42,994	46.39%	667	0.72%	3,972	4.29%	39	0.04%	613	0.66%	2,743	2.96%	54,042	
~~~~	90,818 90,534	97.32% 97.72%	25,849 48,080	28.46% 53.11%	45,915 34,965	50.56% 38.62%	492 443	0.54% 0.49%	14,032 1,977	15.45% 2.18%	50 41	0.06%	624 455	0.69%	1,425 2,511	1.57% 2.77%	64,969 42,454	~~
••••••••	91,145	97.47%	42,071	46.16%	43,078	47.26%	443	0.48%	802	0.88%	37	0.04%	433	0.46%	2,000	2.19%	49,074	
	90,630	95.91%	41,664	45.97%	40,697	44.90%	487	0.54%	1,283	1.42%	40	0.04%	529	0.58%	2,219	2.45%	48,966	
	90,393	96.92%	42,995	47.56%	37,824	41.84%	475	0.53%	3,828	4.23%	35	0.04%	487	0.54%	1,963	2.17%	47,398	
	90,555	96.71%	35,309	38.99%	39,675	43.81%	487	0.54%	9,302	10.27%	45	0.05%	539	0.60%	2,221	2.45%	55,246	
~~~~	92,301 93.035	96.34% 97.50%	74,654 32,455	80.88% 34.88%	7,071 53,436	7.66% 57.44%	268	0.29%	1,655 966	1.79%	39	0.04%	409	0.44%	4,831 2,668	5.23%	17,647 60,580	~~~
	93,035 90,737	97.50% 97.00%			53,436 40,970	57.44% 45.15%	555 583	0.60% 0.64%	966 1,711	1.04% 1.89%	26 24	0.03%	602	0.65%	2,668 2,812	2.87% 3.10%	49,399	
	92,169	97.71%	41,338 33,638	45.56% 36.50%	48,586	52.71%	479	0.52%	4,066	4.41%	48	0.05%	575 744	0.81%	2,499	2.71%	58,531	
~~~~	90,931	97.31%	55,129	60.63%	22,717	24.98%	278	0.31%	7,272	8.00%	31	0.03%	513	0.56%	2,544	2.80%	35,802	~~
	93,017	96.79%	70,323	75.60%	9,699	10.43%	179	0.19%	6,844	7.36%	40	0.04%	453	0.49%	2,489	2.68%	22,694	
	93,876	96.96%	53,576	57.07%	7,286	7.76%	231	0.25%	26,159	27.87%	35	0.04%	469	0.50%	3,266	3.48%	40,300	
	91,654	96.81%	77,948	85.05%	2,123	2.32%	150	0.16%	5,247	5.72%	16	0.02%	329	0.36%	2,920	3.19%	13,706	
	90,719 91,480	95.70% 96.25%	64,054 55,972	70.61% 61.18%	4,362 9,365	4.81% 10.24%	164 262	0.18%	13,578 18,582	14.97% 20.31%	90 28	0.10%	563 468	0.62%	4,003 3,377	4.41% 3.69%	26,665 35,508	
~÷~~	90,562	95.73%	58,079	64.13%	18,949	20.92%	522	0.58%	4,515	4.99%	34	0.04%	550	0.61%	4,044	4.47%	32,483	~~
	91,723	95.68%	46,338	50.52%	35,238	38.42%	626	0.68%	1,091	1.19%	60	0.07%	557	0.61%	3,853	4.20%	45,385	
	90,457	95.91%	76,278	84.33%	2,860	3.16%	378	0.42%	1,102	1.22%	31	0.03%	349	0.39%	5,757	6.36%	14,179	
	91,598	95.39%	68,684	74.98%	9,087	9.92%	356	0.39%	3,148	3.44%	35	0.04%	350	0.38%	5,716	6.24%	22,914	•••
	92,583 93,460	95.27% 95.47%	67,100	72.48%	12,622 2,489	13.63% 2.66%	430 291	0.46% 0.31%	1,333 614	1.44% 0.66%	43 28	0.05%	494 305	0.53%	6,184	6.68% 4.06%	25,483	• • •
~ <u>+</u> ~	93,460 92,978	95.47% 95.44%	81,702 67,635	87.42% 72.74%	2,489 15,159	2.66% 16.30%	291 448	0.31%	614 1,254	0.66%	28 36	0.03%	305 460	0.33%	3,799 3,748	4.06%	11,758 25,343	~~~
	92,092	94.70%	48,991	53.20%	26,606	28.89%	542	0.59%	3,550	3.85%	106	0.12%	813	0.88%	6,601	7.17%	43,101	•••
	92,730	95.18%	63,524	68.50%	7,611	8.21%	269	0.29%	10,809	11.66%	71	0.08%	511	0.55%	5,469	5.90%	29,206	
	92,371	95.87%	76,774	83.11%	2,455	2.66%	338	0.37%	460	0.50%	8	0.01%	314	0.34%	8,205	8.88%	15,597	
	93,023	96.38%	83,300	89.55%	1,377	1.48%	286	0.31%	486	0.52%	29	0.03%	279	0.30%	3,903	4.20%	9,723	
·	89,634 91,456	95.60% 94.75%	75,401 71,684	84.12% 78.38%	2,538 5,882	2.83% 6.43%	433 742	0.48% 0.81%	658 1,791	0.73% 1.96%	24 110	0.03%	362 465	0.40% 0.51%	6,274 5,983	7.00% 6.54%	14,233 19,772	
·	93,422	94.75%	63,125	67.57%	17,971	19.24%	457	0.49%	1,672	1.90%	37	0.12%	465	0.51%	6,196	6.63%	30,297	
	90,270	95.41%	73,271	81.17%	1,607	1.78%	740	0.82%	431	0.48%	43	0.05%	342	0.38%	9,692	10.74%	16,999	
	90,211	95.46%	70,342	77.97%	6,629	7.35%	287	0.32%	4,198	4.65%	28	0.03%	508	0.56%	4,124	4.57%	19,869	~ 
	91,872	94.45%	54,660	59.50%	20,658	22.49%	614	0.67%	2,084	2.27%	49	0.05%	751	0.82%	7,955	8.66%	37,212	
	91,192 92,518	95.22% 96.13%	78,690 81,814	86.29% 88.43%	3,228 764	3.54% 0.83%	378 454	0.41%	1,017 489	1.12% 0.53%	23 21	0.03%	391 289	0.43%	3,106	3.41%	12,502 10,704	• • •
	92,516 89.974	94.59%	60,643	67.40%	13,852	15.40%	596	0.49%	3,450	3.83%	33	0.02%	534	0.51%	5,105 5,998	5.52% 6.67%	29,331	
	90,612	96.22%	81,911	90.40%	1,233	1.36%	412	0.45%	532	0.59%	24	0.03%	284	0.31%	2,795	3.08%	8,701	
	91,041	94.70%	68,652	75.41%	11,332	12.45%	453	0.50%	1,168	1.28%	21	0.02%	390	0.43%	4,202	4.62%	22,389	
	91,302	95.24%	75,752	82.97%	2,998	3.28%	235	0.26%	3,663	4.01%	72	0.08%	424	0.46%	3,811	4.17%	15,550	
	92,373	95.89%	77,005	83.36%	1,713	1.85%	239	0.26%	6,431	6.96%	39	0.04%	375	0.41%	2,774	3.00%	15,368	
	93,247 93,139	96.30% 96.06%	75,830 84,890	81.32% 91.14%	5,497 441	5.90% 0.47%	266 267	0.29%	3,975 704	4.26% 0.76%	60 98	0.06%	415 261	0.45%	3,758 2,808	4.03% 3.01%	17,417 8,249	~~~
	91,507	95.73%	81,444	89.00%	1,245	1.36%	245	0.27%	1,213	1.33%	26	0.03%	308	0.34%	3,123	3.41%	10,063	
	91,098	95.90%	77,384	84.95%	2,596	2.85%	242	0.27%	1,530	1.68%	24	0.03%	333	0.37%	5,252	5.77%	13,714	
	93,056	96.40%	37,975	40.81%	32,009	34.40%	524	0.56%	2,248	2.42%	48	0.05%	523	0.56%	16,376	17.60%	55,081	
	92,949	96.25%	68,469	73.66%	6,488	6.98%	200	0.22%	8,952	9.63%	44	0.05%	518	0.56%	4,793	5.16%	24,480	
	91,805	96.38%	67,646	73.68%	3,248	3.54%	204	0.22%	12,694	13.83%	35	0.04%	351	0.38%	4,303	4.69%	24,159	
	90,410 89,693	96.70% 97.03%	61,232 66,921	67.73%	3,181	3.52%	152	0.17%	19,430 12,450	21.49% 13.88%	42	0.05%	327	0.36%	3,060 2,332	3.38% 2.60%	29,178 22,772	
	90,454	96.34%	70,708	74.61% 78.17%	4,784 7,582	5.33% 8.38%	203 206	0.23%	5,730	6.33%	28 24	0.03%	307 437	0.48%	2,460	2.72%	19,746	
	89,336	96.85%	77,696	86.97%	2,467	2.76%	152	0.17%	3,349	3.75%	26	0.03%	230	0.26%	2,602	2.91%	11,640	~~
	92,742	96.30%	75,726	81.65%	6,826	7.36%	181	0.20%	3,285	3.54%	25	0.03%	275	0.30%	2,994	3.23%	17,016	
	93,156	96.04%	68,778	73.83%	14,448	15.51%	304	0.33%	2,620	2.81%	31	0.03%	418	0.45%	2,870	3.08%	24,378	
	90,539	95.79%	69,774	77.07%	12,289	13.57%	353	0.39%	1,384	1.53%	46	0.05%	317	0.35%	2,564	2.83%	20,765 10,249	
	90,638 91.060	96.02% 95.24%	80,389 78.219	88.69% 85.90%	2,926 3.516	3.23% 3.86%	296 393	0.33%	711 571	0.78%	20 20	0.02%	290	0.32%	2,399	2.65%	12,841	
~	92,892	96.35%	81,712	87.96%	2,176	2.34%	259	0.28%	358	0.39%	66	0.07%	259	0.28%	4,674	5.03%	11,180	~~~
	93,014	96.06%	82,007	88.17%	1,165	1.25%	207	0.22%	1,551	1.67%	28	0.03%	296	0.32%	4,098	4.41%	11,007	
	92,816	95.42%	81,074	87.35%	3,099	3.34%	400	0.43%	412	0.44%	18	0.02%	264	0.28%	3,301	3.56%	11,742	
	93,065	95.45%	76,629	82.34%	5,957	6.40%	387	0.42%	1,672	1.80%	40	0.04%	310	0.33%	3,831	4.12%	16,436	
	91,698	95.56%	63,049	68.76%	19,552	21.32%	486	0.53%	819	0.89%	46	0.05%	355	0.39%	3,324	3.62%	28,649	
·	90,738 91,966	95.83% 96.03%	32,905 83,844	36.26% 91.17%	47,671 671	52.54% 0.73%	773 287	0.85% 0.31%	537 422	0.59% 0.46%	52 39	0.06%	596 236	0.66%	4,417 2,816	4.87% 3.06%	57,833 8,122	
	92,844	95.76%	79,110	85.21%	4,643	5.00%	279	0.30%	1,222	1.32%	34	0.04%	320	0.34%	3,295	3.55%	13,734	
	91,543	96.34%	71,141	77.71%	5,428	5.93%	278	0.30%	6,941	7.58%	66	0.07%	360	0.39%	3,976	4.34%	20,402	····
;^^	90,782	94.29%	53,371	58.79%	16,955	18.68%	567	0.62%	4,023	4.43%	51	0.06%	625	0.69%	10,006	11.02%	37,411	
	93,554	95.77%	74,210	79.32%	4,201	4.49%	312	0.33%	5,583	5.97%	38	0.04%	457	0.49%	4,791	5.12%	19,344	
	92,354 92,594	95.84% 94.89%	72,135 64.342	78.11% 69.49%	7,463 10,483	8.08% 11.32%	350 516	0.38%	2,422 2,028	2.62% 2.19%	26 68	0.03%	335 604	0.36%	5,780 9,822	6.26% 10.61%	20,219 28,252	• • •
	92,394	94.69%	64,342 80,814	69.49% 87.59%	3,372	3.65%	328	0.36%	408	0.44%	68 26	0.07% 0.03%	604 230	0.25%	3,977	4.31%	11,450	•••
	90,952	96.34%	74,930	82.38%	4,101	4.51%	328	0.36%	3,284	3.61%	50	0.05%	340	0.37%	4,590	5.05%	16,022	•••
	92,350	96.27%	62,080	67.22%	11,383	12.33%	290	0.31%	7,639	8.27%	36	0.04%	423	0.46%	7,053	7.64%	30,270	•••
	91,516	95.84%	71,724	78.37%	7,264	7.94%	303	0.33%	2,990	3.27%	39	0.04%	363	0.40%	5,026	5.49%	19,792	• • •
	91,219 91,341	96.49% 96.22%	45,537 47,115	49.92% 51.58%	24,853 8,593	27.25% 9.41%	483 394	0.53% 0.43%	3,133 2,548	3.43% 2.79%	56 36	0.06%	614 376	0.67% 0.41%	13,338 28,823	14.62% 31.56%	45,682 44,226	• • •
·	91,341 91,890	96.22% 95.63%	69,044	51.58% 75.14%	5,857	9.41% 6.37%	394 453	0.43%	2,548	2.79%	36 57	0.04%	376 387	0.41%	28,823	11.25%	22,846	
	90,127	96.72%	78,534	87.14%	1,139	1.26%	148	0.16%	1,931	2.14%	27	0.03%	254	0.28%	5,138	5.70%	11,593	
	90,575	96.70%	59,794	66.02%	2,446	2.70%	206	0.23%	4,657	5.14%	87	0.10%	299	0.33%	20,099	22.19%	30,781	
	91,376	95.14%	56,574	61.91%	22,390	24.50%	775	0.85%	507	0.55%	49	0.05%	397	0.43%	6,240	6.83%	34,802	
	90,900	96.12% 96.17%	79,817	87.81% 86.99%	1,373	1.51%	355	0.39%	1,322 780	1.45%	34	0.04%	274	0.30%	4,199	4.62% 5.55%	11,083 12,113	
·	93,134 91,549	96.17% 96.12%	81,021 79,833	86.99% 87.20%	1,862 1,531	2.00% 1.67%	446 246	0.48%	780 861	0.84% 0.94%	26 23	0.03%	266 297	0.29%	5,165 5,205	5.55% 5.69%	12,113 11,716	
	91,350	96.18%	82,902	90.75%	518	0.57%	333	0.36%	362	0.40%	23 37	0.03%	240	0.32 %	3,465	3.79%	8,448	
	92,520	96.17%	75,353	81.45%	4,314	4.66%	2,215	2.39%	1,331	1.44%	67	0.07%	295	0.32%	5,400	5.84%	17,167	
	89,410	97.27%	77,310	86.47%	3,436	3.84%	212	0.24%	1,068	1.19%	27	0.03%	224	0.25%	4,694	5.25%	12,100	
	90,438	96.25%	41,966	46.40%	30,832	34.09%	436	0.48%	1,169	1.29%	67	0.07%	591	0.65%	11,982	13.25%	48,472	
··•;•••	91,439 90 544	95.87% 95.87%	81,252 78 601	88.86% 86.81%	1,019	1.11%	358 326	0.39%	1,751 516	1.91%	84 7	0.09%	354 238	0.39%	2,844	3.11% 6.14%	10,187	• • •
	90,544 93,159	95.87% 96.35%	78,601 82,768	86.81% 88.85%	1,558 2,158	1.72% 2.32%	326 314	0.36%	516 480	0.57% 0.52%	/ 13	0.01%	238 272	0.26%	5,563 3,751	6.14% 4.03%	11,943 10,391	• • •
	93,159 92,049	96.35% 97.19%	85,257	92.62%	2,158	0.35%	279	0.34%	480	0.52%	13	0.01%	212	0.29%	3,751	4.03%	6,792	•••
~	89,375	96.55%	82,996	92.86%	377	0.42%	484	0.54%	329	0.37%	22	0.02%	215	0.23%	1,867	2.09%	6,379	~~
	91,751	96.09%	83,685	91.21%	1,112	1.21%	556	0.61%	461	0.50%	34	0.04%	305	0.33%	2,010	2.19%	8,066	
	92,604	95.92%	81,036	87.51%	1,437	1.55%	501	0.54%	451	0.49%	52	0.06%	276	0.30%	5,072	5.48%	11,568	
	91,886	95.81%	78,502	85.43%	1,156	1.26%	953	1.04%	392	0.43%	35	0.04%	285	0.31%	6,712	7.30%	13,384	
	93,426	96.18%	83,811	89.71%	553	0.59%	1,215	1.30%	775	0.83%	51	0.05%	312	0.33%	3,141	3.36%	9,615	
	89,466 89,541	96.11% 96.35%	81,664 82,982	91.28% 92.67%	337 318	0.38%	912 484	1.02%	439 339	0.49% 0.38%	57 37	0.06%	270	0.30%	2,307 1.899	2.58%	7,802 6,559	
·	90,875	96.35%	82,982 84,203	92.67% 92.66%	318 300	0.36% 0.33%	484 1,026	0.54% 1.13%	339 325	0.38%	37 36	0.04%	216 253	0.24%	1,899 1,218	2.12% 1.34%	6,672	
	92,701	94.50%	77,224	83.30%	1,225	1.32%	6,574	7.09%	525	0.57%	79	0.09%	328	0.35%	1,644	1.77%	15,477	
	89,366	95.14%	76,008	85.05%	2,043	2.29%	4,909	5.49%	331	0.37%	32	0.04%	191	0.21%	1,510	1.69%	13,358	
	89,410	95.22%	78,151	87.41%	2,033	2.27%	2,514	2.81%	490	0.55%	42	0.05%	258	0.29%	1,648	1.84%	11,259	

•••••		100.00%	15 027	24.32%	25 250	29.55%	1.082	1 650/	268	0.449/	20	0.000/	15 /10				49,583	75.6
	65,520 69,719	100.00%	15,937 49,521	71.03%	25,259 7,838	38.55% 11.24%	1,083 530	1.65% 0.76%	876	0.41% 1.26%	20 41	0.03%	15,412 4,698	23.52% 6.74%	7,541 6,215	11.51% 8.91%	20,198	28.
	66,030	100.00%	35,432	53.66%	21,851	33.09%	310	0.47%	1,840	2.79%	17	0.03%	2,646	4.01%	3,934	5.96%	30,598	46.
	64,833 71,629	100.00%	25,214 27,576	38.89% 38.50%	36,229 39,762	55.88% 55.51%	112 148	0.17% 0.21%	329 1,115	0.51% 1.56%	9 21	0.01%	630 534	0.97%	2,310 2,473	3.56%	39,619 44,053	61 61
	73,324	100.00%	28,568	38.96%	40,488	55.22%	139	0.19%	970	1.32%	11	0.02%	552	0.75%	2,475	3.54%	44,756	61
	75,856	100.00%	36,718	48.40%	33,728	44.46%	177	0.23%	1,316	1.73%	22	0.03%	656	0.86%	3,239	4.27%	39,138	51
	76,299	100.00%	34,497	45.21%	33,556	43.98%	257	0.34%	3,502	4.59%	18	0.02%	780	1.02%	3,689	4.83%	41,802	54
	66,200 74,475	100.00% 100.00%	18,810 40,184	28.41% 53.96%	34,354 29,036	51.89% 38.99%	140 150	0.21% 0.20%	9,745 1,735	14.72% 2.33%	15 23	0.02%	511 571	0.77% 0.77%	2,625 2,776	3.97% 3.73%	47,390 34,291	71. 46.
•••••	70,700	100.00%	36,493	51.62%	30,445	43.06%	161	0.23%	675	0.95%	9	0.01%	456	0.64%	2,461	3.48%	34,207	48.
	68,955	100.00%	35,597	51.62%	28,415	41.21%	216	0.31%	905	1.31%	24	0.03%	568	0.82%	3,230	4.68%	33,358	48.
····	69,812	100.00%	36,678	52.54%	26,931	38.58%	204	0.29%	2,742	3.93%	17	0.02%	495	0.71%	2,745	3.93%	33,134	47.
····-	69,140 69,652	100.00% 100.00%	30,232 58,114	43.73% 83.43%	28,566 5,077	41.32% 7.29%	232 228	0.34% 0.33%	6,457 1,316	9.34% 1.89%	19 16	0.03%	734 1,077	1.06% 1.55%	2,900 3,824	4.19% 5.49%	38,908 11,538	56. 16.
	72,066	100.00%	27,788	38.56%	39,751	55.16%	232	0.32%	744	1.03%	13	0.02%	707	0.98%	2,831	3.93%	44,278	61.
	71,354	100.00%	35,350	49.54%	30,443	42.66%	219	0.31%	1,389	1.95%	9	0.01%	787	1.10%	3,157	4.42%	36,004	50.
	75,714 72,930	100.00% 100.00%	28,685 45,065	37.89% 61.79%	39,653 18,392	52.37% 25.22%	154 98	0.20%	3,140 5.843	4.15% 8.01%	33 13	0.04%	872 653	1.15% 0.90%	3,177 2,866	4.20%	47,029 27,865	62. 38.
	74,684	100.00%	57,712	77.27%	7,656	10.25%	97	0.13%	5,548	7.43%	20	0.03%	664	0.89%	2,987	4.00%	16,972	22.
	71,599	100.00%	43,355	60.55%	5,691	7.95%	134	0.19%	18,648	26.05%	14	0.02%	781	1.09%	2,976	4.16%	28,244	39.
	75,487	100.00%	65,913	87.32%	1,713	2.27%	129	0.17%	4,031	5.34%	9	0.01%	568	0.75%	3,124	4.14%	9,574	12.
	76,266 69,996	100.00% 100.00%	55,944 45,008	73.35% 64.30%	3,707 6,953	4.86% 9.93%	151 185	0.20%	11,276 13,738	14.79% 19.63%	58 8	0.08%	993 654	1.30% 0.93%	4,137 3,450	5.42% 4.93%	20,322 24,988	26. 35.
m	73,216	100.00%	49,571	67.71%	14,465	19.76%	336	0.46%	3,650	4.99%	15	0.02%	1,052	1.44%	4,127	5.64%	23,645	32.
	70,678	100.00%	38,961	55.12%	25,483	36.06%	333	0.47%	806	1.14%	13	0.02%	1,043	1.48%	4,039	5.71%	31,717	44.4
	73,737	100.00%	64,873	87.98%	2,196	2.98%	396	0.54%	904	1.23%	17	0.02%	1,038	1.41%	4,313	5.85%	8,864	12.
	71,385	100.00%	56,386 56,198	78.99% 77.64%	6,603	9.25% 11.93%	288	0.40%	2,319	3.25% 1.41%	10	0.01%	1,101	1.54%	4,678	6.55% 6.33%	14,999 16,183	21.0 22.3
····-	72,381 73,606	100.00% 100.00%	56,198 66,762	77.64% 90.70%	8,637 1,722	11.93% 2.34%	330 244	0.46%	1,020 499	1.41% 0.68%	24 15	0.03%	1,590 756	2.20% 1.03%	4,582 3,608	4.90%	16,183 6,844	22. 9.3
	73,558	100.00%	55,695	75.72%	11,786	16.02%	293	0.40%	954	1.30%	14	0.02%	786	1.07%	4,030	5.48%	17,863	24.
	73,449	100.00%	42,957	58.49%	19,599	26.68%	347	0.47%	2,880	3.92%	63	0.09%	2,163	2.94%	5,440	7.41%	30,492	41.
	74,822 73,142	100.00%	53,695 64,302	71.76% 87.91%	5,884 2,188	7.86% 2.99%	220 395	0.29% 0.54%	8,728 365	11.67% 0.50%	43 11	0.06%	1,447 1,665	1.93% 2.28%	4,805 4,216	6.42% 5.76%	21,127 8,840	28. 12.0
	71,335	100.00%	65,360	91.62%	1,215	1.70%	395	0.43%	347	0.49%	11	0.02%	972	1.36%	3,120	4.37%	5,975	8.3
	68,621	100.00%	60,102	87.59%	1,894	2.76%	395	0.58%	497	0.72%	5	0.01%	2,256	3.29%	3,472	5.06%	8,519	12.
	71,787	100.00%	59,067	82.28%	4,512	6.29%	566	0.79%	1,453	2.02%	71	0.10%	1,810	2.52%	4,308	6.00%	12,720	17.
	73,770 69,482	100.00% 100.00%	53,933 59,916	73.11% 86.23%	12,604 1,202	17.09% 1.73%	342 707	0.46% 1.02%	1,247 313	1.69% 0.45%	26 29	0.04%	1,963 2,977	2.66% 4.28%	3,655 4,338	4.95%	19,837 9,566	26. 13.
	69,763	100.00%	56,991	81.69%	4,803	6.88%	257	0.37%	3,113	4.46%	12	0.04%	1,035	4.28%	4,336 3,552	5.09%	12,772	13.
	72,876	100.00%	48,204	66.15%	14,464	19.85%	445	0.61%	1,886	2.59%	30	0.04%	2,971	4.08%	4,876	6.69%	24,672	33.
····	70,454	100.00%	62,767	89.09%	2,241	3.18%	309	0.44%	786	1.12%	21	0.03%	753	1.07%	3,577	5.08% 4.54%	7,687 5,945	10.
····	70,016 68,782	100.00%	64,071 50,230	91.51% 73.03%	496 9,974	0.71% 14.50%	423 427	0.60%	368 2,345	0.53% 3.41%	12 15	0.02%	1,469 1,668	2.10%	3,177 4,123	4.54%	5,945 18,552	8.4 26.
	71,054	100.00%	66,034	92.93%	825	1.16%	336	0.47%	388	0.55%	9	0.01%	573	0.81%	2,889	4.07%	5,020	7.0
	71,551	100.00%	56,919	79.55%	8,797	12.29%	341	0.48%	918	1.28%	10	0.01%	885	1.24%	3,681	5.14%	14,632	20.
	73,378 74,656	100.00% 100.00%	62,900 63,462	85.72% 85.01%	2,303 1,361	3.14% 1.82%	185 204	0.25% 0.27%	3,081 5,425	4.20%	38 13	0.05%	747 574	1.02% 0.77%	4,124 3,617	5.62% 4.84%	10,478 11,194	14.1 14.1
····-}·	74,036	100.00%	62,073	83.58%	4,362	5.87%	204	0.27%	3,096	7.27% 4.17%	13 33	0.02%	917	1.23%	3,558	4.84 %	12,194	16.4
	72,160	100.00%	67,169	93.08%	324	0.45%	264	0.37%	560	0.78%	60	0.08%	511	0.71%	3,272	4.53%	4,991	6.9
	72,488	100.00%	66,120	91.22%	921	1.27%	233	0.32%	986	1.36%	18	0.02%	556	0.77%	3,654	5.04%	6,368	8.7
~~~ <u>+</u> ~	72,818 71,476	100.00%	64,265 34,954	88.25% 48.90%	1,995 23,614	2.74% 33.04%	232 462	0.32% 0.65%	1,211 1,696	1.66% 2.37%	23	0.03%	1,140 5,265	1.57% 7.37%	3,952 5,464	5.43% 7.64%	8,553 36,522	11. 51.
	73,853	100.00%	56,349	76.30%	5,206	7.05%	176	0.24%	7,066	9.57%	21 23	0.03%	1,218	1.65%	3,815	5.17%	17,504	23.7
	71,848	100.00%	55,098	76.69%	2,552	3.55%	176	0.24%	9,448	13.15%	12	0.02%	999	1.39%	3,563	4.96%	16,750	23.
	71,737	100.00%	51,314	71.53%	2,487	3.47%	93	0.13%	14,078	19.62%	23	0.03%	759	1.06%	2,983	4.16%	20,423	28.4
	71,864	100.00%	55,131	76.72% 80.55%	3,554	4.95% 7.91%	131	0.18%	9,699 4,466	13.50% 6.08%	7 14	0.01%	604 703	0.84%	2,738	3.81% 4.29%	16,733 14,284	23. 19.
	73,423 70,271	100.00% 100.00%	59,139 62,464	80.55% 88.89%	5,809 1,831	7.91% 2.61%	143 121	0.19% 0.17%	2,518	3.58%	14	0.02%	703 549	0.96% 0.78%	3,149 2,775	4.29%	14,284 7,807	19.4
	72,453	100.00%	60,859	84.00%	5,173	7.14%	125	0.17%	2,528	3.49%	20	0.03%	601	0.83%	3,147	4.34%	11,594	16.0
į.	75,006	100.00%	58,242	77.65%	10,443	13.92%	192	0.26%	2,028	2.70%	13	0.02%	698	0.93%	3,390	4.52%	16,764	22.3
	74,114 72,589	100.00% 100.00%	59,656 66,013	80.49% 90.94%	9,024 2,109	12.18% 2.91%	261 266	0.35% 0.37%	1,100 580	1.48%	32	0.04%	515 494	0.69% 0.68%	3,526 3,120	4.76% 4.30%	14,458 6,576	19. 9.0
	71,638	100.00%	64,148	89.54%	2,618	3.65%	345	0.48%	476	0.80%	10	0.01%	712	0.99%	3,329	4.65%	7,490	10.4
	73,184	100.00%	66,128	90.36%	1,780	2.43%	260	0.36%	278	0.38%	36	0.05%	1,261	1.72%	3,441	4.70%	7,056	9.6
	71,767	100.00%	65,152	90.78%	819	1.14%	180	0.25%	1,164	1.62%	15	0.02%	899	1.25%	3,538	4.93%	6,615	9.2
~~~÷~	73,721 73,273	100.00% 100.00%	66,255 62,606	89.87% 85.44%	2,454 4,454	3.33% 6.08%	354 292	0.48%	304 1,319	0.41%	7 16	0.01%	604 721	0.82%	3,743 3,865	5.08% 5.27%	7,466 10,667	10. 14.
	71,476	100.00%	51,854	72.55%	4,454	19.96%	338	0.40%	637	0.89%	10	0.02%	766	1.07%	3,606	5.05%	19,622	27.4
	68,117	100.00%	28,088	41.23%	34,368	50.45%	359	0.53%	404	0.59%	23	0.03%	1,219	1.79%	3,656	5.37%	40,029	58.
	72,963	100.00%	68,153	93.41%	480	0.66%	284	0.39%	314	0.43%	27	0.04%	508	0.70%	3,197	4.38%	4,810	6.5
	72,890 75,397	100.00% 100.00%	63,903 60,170	87.67% 79.80%	3,518 4,929	4.83% 6.54%	232 259	0.32% 0.34%	957 5,666	1.31% 7.51%	12 45	0.02%	590 1,157	0.81%	3,678 3,171	5.05% 4.21%	8,987 15,227	12. 20.
	70,233	100.00%	46,322	65.95%	4,929 12,237	6.54% 17.42%	459	0.65%	3,020	4.30%	45 34	0.05%	2,493	3.55%	5,668	4.21% 8.07%	23,911	20. 34.0
	75,207	100.00%	61,864	82.26%	3,280	4.36%	297	0.39%	4,620	6.14%	19	0.03%	1,186	1.58%	3,941	5.24%	13,343	17.
	73,043	100.00%	60,004	82.15%	5,682	7.78%	287	0.39%	1,793	2.45%	14	0.02%	1,288	1.76%	3,975	5.44%	13,039	17.4
	72,106 71,687	100.00% 100.00%	54,583 64,261	75.70% 89.64%	7,615 3,232	10.56% 4.51%	507 290	0.70% 0.40%	1,599 306	2.22% 0.43%	30 9	0.04%	2,483 836	3.44% 1.17%	5,289 2,753	7.34%	17,523 7,426	24. 10.
	67,213	100.00%	57,578	85.66%	2,826	4.31%	262	0.39%	2,356	3.51%	9 29	0.01%	1,260	1.87%	2,755 2,902	4.32%	9,635	10.
	69,344	100.00%	49,986	72.08%	7,955	11.47%	302	0.44%	5,532	7.98%	18	0.03%	2,101	3.03%	3,450	4.98%	19,358	27.
	71,975	100.00%	59,432	82.57%	5,128	7.12%	249	0.35%	2,211	3.07%	20	0.03%	1,349	1.87%	3,586	4.98%	12,543	17.
	70,814 67,461	100.00% 100.00%	40,912 41,305	57.77% 61.23%	17,724 6,147	25.03% 9.11%	487 866	0.69% 1.28%	2,395 2,028	3.38% 3.01%	37 15	0.05%	4,554 10,452	6.43% 15.49%	4,705 6,648	6.64% 9.85%	29,902 26,156	42. 38.
	73,379	100.00%	59,418	80.97%	4,058	5.53%	458	0.62%	1,420	1.94%	35	0.05%	3,517	4.79%	4,473	6.10%	13,961	19.
	66,158	100.00%	59,909	90.55%	776	1.17%	173	0.26%	1,442	2.18%	16	0.02%	1,196	1.81%	2,646	4.00%	6,249	9.4
	70,221 70,829	100.00% 100.00%	52,261 47,928	74.42% 67.67%	1,772 16,359	2.52% 23.10%	512 635	0.73% 0.90%	3,649 386	5.20% 0.54%	38 23	0.05%	6,137 1,550	8.74% 2.19%	5,852 3,948	8.33% 5.57%	17,960 22,901	25. 32.
	70,829	100.00%	64,686	91.04%	989	1.39%	295	0.42%	985	1.39%	8	0.03%	896	1.26%	3,940 3,192	4.49%	6,365	32. 8.9
	71,969	100.00%	64,816	90.06%	1,487	2.07%	434	0.60%	654	0.91%	13	0.02%	1,384	1.92%	3,181	4.42%	7,153	9.9
	68,467	100.00%	62,090	90.69%	1,036	1.51%	251	0.37%	622	0.91%	11	0.02%	1,365	1.99%	3,092	4.52%	6,377	9.3
····-	70,036 73,959	100.00% 100.00%	65,338 62,656	93.29% 84.72%	332 3,838	0.47% 5.19%	273 1,738	0.39% 2.35%	269 1,044	0.38%	30 23	0.04%	816 1,157	1.17% 1.56%	2,978 3,503	4.25%	4,698 11,303	6.7 15.1
	72,182	100.00%	64,253	89.02%	3,067	4.25%	221	0.31%	851	1.18%	20	0.03%	1,103	1.53%	2,667	3.69%	7,929	10.1
	69,020	100.00%	37,664	54.57%	22,410	32.47%	396	0.57%	920	1.33%	42	0.06%	3,120	4.52%	4,468	6.47%	31,356	45.
	71,873	100.00%	65,650	91.34% 01.14%	734	1.02%	304	0.42%	1,346	1.87%	54	0.08%	606	0.84%	3,179	4.42%	6,223	8.6
····	72,724 73,355	100.00% 100.00%	66,283 66,995	91.14% 91.33%	1,180 1,734	1.62% 2.36%	313 289	0.43% 0.39%	420 365	0.58% 0.50%	5 4	0.01% 0.01%	962 755	1.32% 1.03%	3,561 3,213	4.90% 4.38%	6,441 6,360	8.8 8.6
	72,801	100.00%	68,968	94.73%	248	0.34%	249	0.34%	216	0.30%	14	0.02%	735	0.98%	2,395	3.29%	3,833	5.2
	72,792	100.00%	68,717	94.40%	258	0.35%	422	0.58%	273	0.38%	5	0.01%	436	0.60%	2,681	3.68%	4,075	5.6
	72,641	100.00%	67,458	92.86%	860	1.18%	467	0.64%	367	0.51%	11	0.02%	437	0.60%	3,041	4.19%	5,183	7.1
	72,534 72,924	100.00% 100.00%	66,119 65,252	91.16% 89.48%	1,204 933	1.66% 1.28%	452 883	0.62% 1.21%	326 300	0.45% 0.41%	15 13	0.02%	1,015 1,619	1.40%	3,403 3,924	4.69% 5.38%	6,415 7,672	8.8 10.
	76,458	100.00%	70,511	92.22%	361	0.47%	961	1.26%	570	0.75%	35	0.05%	789	1.03%	3,231	4.23%	5,947	7.7
	71,871	100.00%	67,092	93.35%	229	0.32%	725	1.01%	334	0.46%	36	0.05%	558	0.78%	2,897	4.03%	4,779	6.6
	72,736	100.00%	68,674	94.42%	203	0.28%	404	0.56%	243	0.33%	12	0.02%	405	0.56%	2,795	3.84%	4,062	5.5
	75,466 75,875	100.00% 100.00%	71,064 65,122	94.17% 85.83%	174 1,065	0.23%	796 4,835	1.05% 6.37%	254 369	0.34% 0.49%	15 40	0.02%	275 423	0.36%	2,888 4,021	3.83% 5.30%	4,402 10,753	5.8 14.
muh	72,443	100.00%	63,410	85.83%	1,065	2.64%	4,835 3,351	4.63%	264	0.49%	40 17	0.05%	423 294	0.56%	4,021 3,196	4.41%	9,033	14. 12.
		100.00%	65,262	89.17%	1,904	2.60%	1,879	2.57%	394	0.54%	15	0.02%	380	0.52%	3,353	4.58%	7,925	10.

## 12,234 47,135 34,560 25,035 27,295 28,261 24,914 7,694 21,669 36,049 39,617 40,275 65,520 69,719 66,030 64,833 71,629 73,324 100.00% 100.00% 100.00% 100.00% 100.00% 18.67% 67.61% 52.34% 38.61% 38.11% 38.54% 25,875 10,881 5,043 1,041 1,219 1,311 39.49% 15.61% 7.64% 1.61% 1.70% 1.79% 2.70% 3.82% 3.67% 3.10% 2.70% 2.81% 53,286 22,584 31,470 39,798 44,334 45,063 0.41% 0.31% 0.52% 0.43% 0.43% 0.45% 32.82% 55.60% 55.31% 54.93% 1,83 327 2,011 1,934 2,064 61.895 75,856 76,299 66,200 74,475 47.68% 44.50% 28.03% 53.31% 51.18% 51.03% 2.52% 2.61% 1.48% 2.35% 1.82% 52.32% 55.50% 71.97% 46.69% 100.00% 100.00% 100.00% 100.00% 44.29% 43.70% 51.65% 38.79% 1,297 3,488 9,719 1,728 316 323 302 277 1,908 1,994 977 1,752 2,424 2,966 2,324 1,982 39,689 42,346 47,641 34,772 33,596 33,343 34,193 28,888 30,272 28,265 26,778 28,425 4,999 0.17% 0.29% 0.17% 0.17% 0.42% 0.42% 0.46% 0.37% 0.33% 0.41% 0.34% 0.34% 0.36% 36,167 33,953 18,559 39,703 36,183 35,190 36,321 29,851 57,221 1.71% 0.03% 0.02% 0.02% 0.03% 0.01% 0.02% 0.02% 3.20% 3.89% 3.51% 2.66% 2.72% 3.92% 3.92% 3.52% 3.49% 14.68% 2.32% 10 48.829 48.97% 47.97% 56.83% 17.85% 11 12 42.82 40.99 657 884 2.08% 1.89% 2.14% 4.70% 100.00% 1.289 1,435 68,955 69,812 180 0.269 2,704 33,765 33,491 52.03% 43.17% 82.15% 38.03% 48.90% 37.44% 61.39% 76.81% 59.96% 86.64% 2,732 6,434 1,304 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 34 35 36 37 38 39 40 69,140 69,652 39,289 12,431 100.009 9.319 1.879 0.039 2,43 2,43 72,066 71,354 100.009 100.009 27,40 34,89 39,577 30,277 734 1,38 0.029 293 328 0.41° 0.46° 2.44% 2.64% 2.919 61.97 51.10 44,661 36,463 42.43 75,714 72,930 74,684 100.00% 100.00% 100.00% 100.00% 28,345 44,772 57,364 39,493 18,311 7,615 5,647 1,689 52.16% 25.11% 10.20% 7.89% 2.24% 0.17% 0.10% 0.10% 3,118 5,834 5,539 18,61 0.04% 0.46% 1,817 1,704 1,684 2,198 2,072 2.40% 2.34% 2.25% 2,363 1,899 2,061 3.12% 2.60% 2.76% 2.55% 2.63% 47,369 28,158 17,320 62.569 38.619 23.199 4.129 126 75 73 94 91 423 322 329 273 214 8.00% 7.42% 0.02% 71,599 75,487 42,928 65,400 26.00° 0.38 3.07% 2.74% 28,671 40.049 13.369 4,027 11,247 13,718 3.90% 3.17% 4.08% 28.359 36.479 33.289 102 125 257 436 271 318 76,266 69,996 100.009 54,644 44,470 48,850 38,243 63,626 55,282 55,049 65,952 54,841 71.65% 63.53% 66.72% 54.11% 86.29% 77.44% 76.05% 89.60% 74.55% 57.13% 70.65% 85.26% 90.73% 3,647 4.78% 9.84% 0.13% 14.75% 0.08% 0.57% 3,158 2,302 4.14% 3.29% 2,974 2,216 21,622 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 3.82% 2,98 14,364 4.96% 1.14% 1.21% 0.43 2,799 3,630 24,36 0.02% 0.01% 0.02% 0.03% 0.03% 0.02% 0.02% 73,210 70,678 73,737 71,385 72,381 73,606 73,558 73,449 25,318 2,160 6,522 8,561 1,694 11,566 32,435 10,111 16,103 17,332 7,654 18,717 31,491 35.82% 2.93% 9.14% 11.83% 2.30% 15.72% 259 275 235 0.37% 0.37% 0.33% 0.33% 0.25% 0.33% 279 205 194 2,549 3,939 3,827 4,065 2,365 2,605 4,564 0.39% 0.28% 0.27% 0.41% 0.20% 0.32% 3,218 2,625 3,007 3,140 2,754 3,111 4.55% 3.56% 4.21% 4.23% 5.33% 4.14% 3.44% 3.23% 4.14% 3.71% 4.42% 3.71% 4.42% 3.30% 4.42% 3.30% 4.02% 3.59% 4.05% 3.16% 4.05% 803 893 2,308 1,010 494 944 2,859 8,715 359 346 3.61% 5.34% 5.62% 3.21% 3.54% 6.21% 5.23% 7.27% 3.29% 45.89% 13.71% 22.56% 23.95% 10.40% 25.45% 42.87% 29.35% 14.74% 9.27% 13.35% 18.90% 27.88% 15.41% 19.25% 3.23% 1.40% 0.67% 1.28% 300 150 237 237 182 240 73,449 74,822 73,142 71,335 19,436 5,806 2,107 1,186 0.30% 0.15% 0.36% 0.34% 3.89% 11.65% 0.49% 0.49% 0.08% 0.04% 0.01% 0.02% 4,564 3,915 5,321 2,344 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 440 289 208 174 41,958 52,861 62,364 64,724 59,462 58,222 53,201 58,772 56,331 47,033 62,218 63,251 49,162 26.46% 7.76% 2.88% 1.66% 2.74% 6.19% 16.97% 1.69% 6.74% 0.60% 0.39% 0.28% 0.24% 0.30% 0.37% 0.38% 0.31% 0.36% 3,915 3,094 2,515 2,307 2,549 3,171 2,436 2,792 2,504 31,491 21,961 10,778 6,611 9,159 13,565 20,569 10,710 13,432 3.29% 5.44% 5.18% 5.18% 8.20% 3.86% 90.73% 86.65% 81.10% 72.12% 84.59% 80.75% 0.029 0.019 0.10% 0.03% 0.02% 0.02% 1,882 4,442 12,516 1,171 4,701 3,732 3,715 3,824 5,699 2,691 68,621 71,787 73,770 69,482 69,763 0.43% 0.65% 0.34% 0.73% 0.24% 0.34% 0.39% 0.48% 0.47% 265 277 215 2.00% 1.68% 0.45% 4.45% 80.75% 64.54% 88.31% 90.34% 71.48% 92.00% 78.41% 4,701 14,294 2,205 453 9,865 809 8,709 0.38% 0.29% 0.26% 0.40% 0.26% 0.25% 5,390 1,892 3,207 3,804 72,876 70,454 70,016 68,782 100.00% 100.00% 100.00% 100.00% 2.54% 0.02% 495 205 181 272 7.409 3,538 2,861 25,843 8,236 6,765 19,620 35.46% 11.69% 9.66% 28.52% ,849 780 7.40% 2.69% 4.58% 5.53% 3.13% 0.51% 3.39% 0.65% 14.34% 71,054 71,551 100.00% 100.00% 65,367 56,102 1.14% 0.41% 0.54% 1.26% 0.01% 182 179 1,759 2.48% 3.54% 2,254 3.17% 5,687 15,449 8.00% 383 901 62,228 62,938 61,476 66,588 4.17% 7.25% 4.14% 0.77% 73,378 74,656 100.00% 100 84.80% 84.30% 82.78% 92.28% 90.44% 86.85% 46.05% 75.98% 75.98% 75.93% 76.21% 79.90% 88.36% 83.34% 77.01% 79.07% 90.27% 88.31% 89.95% 88.39% 84.24% 71.44% 2,250 1,334 3,057 5,414 0.05% 0.02% 0.04% 0.08% 3.43% 2.56% 3.98% 3.49% 11,150 11,718 2,520 1,912 74,267 72,160 4,321 316 908 1,939 23,29<sup>1</sup> 5,134 .25% .30% 3,075 554 980 1,190 1,679 7,043 9,425 14,06 9,688 4 455 256 187 0.34% 0.26% 2,508 1,836 3.38% 2.54% 2.70% 4.81% 14.72% 4.33% 3.98% 2.94% 2.94% 2.24% 2.25% 2.55% 2.35% 2.13% 3.30% 4.12% 3.59% 3.15% 3.25% 3.33% 12,791 5,572 6,928 9,577 38,561 18,224 17,261 20,851 17,094 14,757 72,160 72,488 72,818 71,476 73,853 71,848 71,737 1,950 1,960 3,506 10,519 3,199 2,857 2,107 65,560 63,241 32,915 0.02% 0.03% 0.03% 0.28% 0.23% 0.28% 0.15% 0.14% 0.08% 0.14% 0.15% 0.12% 0.12% 0.13% .35% .63% 2.35% 2.54% 2,646 2,547 2,582 2,404 2,131 1,952 3.65%, 3.50%, 3.61%, 3.26%, 2.97%, 2.72%, 2.74%, 3.24%, 3.24%, 3.24%, 3.34%, 3.43%, 3.43%, 3.43%, 3.43%, 3.35%, 3.97%, 3.97%, 3.97%, 3.97%, 3.97%, 3.97%, 3.97%, 3.97%, 3.46%, 3.76%, 2.99%, 218 207 270 308 218 180 9.56% 13.15% 53.95% 24.68% 24.02% 29.07% 23.79% 20.10% 11.64% 0.03% 0.01% 0.03% 55,629 54,587 50,886 54,770 58,666 62,088 60,379 57,760 59,135 65,523 63,262 65,523 63,262 65,523 63,262 65,523 61,728 51,063 27,175 67,428 6.95% 3.51% 3.44% 4.89% 7.86% 2.58% 7.08% 13.83% 2,523 2,465 13.129 19.619 71,864 73,423 70,271 72,453 75,006 74,114 13.48% 6.07% 3.58% 3.47% 2.69% 1.47% 0.01% 0.01% 0.02% 0.02% 0.01% 0.26% 0.35% 0.19% 0.19% 3,512 5,771 1,815 5,128 10,375 8,948 2,077 2,551 1,749 790 2,416 4,399 14,183 188 257 132 141 243 1,629 1,771 1,755 1,949 1,890 1,745 1,543 2,364 1,972 2,379 1,868 2,228 2,570 113 86 97 4,455 2,516 2,517 2,020 8,183 12,074 17,246 14,979 7,066 8,376 7,759 7,216 8,190 11,545 20,413 16.66 22.99 0.03% 0.01% 0.05% 0.02% 0.02% 0.02% 0.02% 0.02% 0.03% 0.03% 0.28% 0.23% 0.25% 0.24% 0.25% 0.23% 0.29% 0.32% 0.39% 0.39% 2,746 2,476 2,526 2,325 2,370 3,006 2,910 2,835 2,835 2,875 2,528 2,742 74,114 72,589 71,638 73,184 71,767 73,721 73,721 73,273 71,476 12.079 2.86% 3.56% 2.39% 1.10% 3.28% 6.00% 19.849 222 276 188 134 302 237 276 0.31% 0.39% 0.26% 0.41% 0.32% 0.39% 0.39% 0.32% 0.32% 170 182 177 178 168 213 230 264 140 20.21% 9.73% 11.69% 10.60% 10.05% 11.11% 15.76% 28.56% 60.11% 7.59% 0.79% 0.65% 0.36% 1.61% 0.41% 1.78% 0.88% 3,018 2,576 1,991 2,466 2,252 2,976 1,835 2,097 2,868 1,154 301 ,305 626 0.66 A 0.59% 0.42% 1.31% 7.50% 68,117 72,963 72,890 75,397 39.89% 92.41% 86.72% 78.57% 4.37% 2.51% 2.88% 3.80% 40,942 5,535 9,683 16,155 34,144 466 50.13% 0.64% 63,207 59,242 44,548 60,977 100.00% 3,490 4,898 4.79% 0.02% 194 236 0.31% 100.009 70,233 75,207 63.439 81.089 11,975 3,203 4.279 6.129 0.04% 9.39% 4.27% 4.99% 3.57% 25,685 14,230 36.57 18.92 2,687 73,043 72,106 71,687 0.28% 100.00% 100.00% 100.00% 2.44% 2.18% 0.43% 5.18% 9.15% 3.47% 2,563 3,101 1,972 3.51% 4.30% 2.75% 58,896 52,755 80.63% 73.16% 88.34% 84.66% 70.96% 81.42% 55.75% 57.46% 5,600 7,390 0.01% 207 356 129 3,783 6,597 14,147 19,351 19.37 26.84 7.67% 10.25% 202 311 1,782 1,574 0.28% 0,597 2,490 2,787 4,380 3,329 8,520 18,188 63,3 3,210 8,359 67,213 69,344 71,975 70,814 67,461 100.00% 100.00% 100.00% 100.00% 100.00% 56,902 49,206 58,603 39,478 38,764 2,774 7,822 5,057 4.13% 11.289 7.03% 24.589 196 143 176 176 0.29% 0.21% 0.24% 0.25% 0.33% 0.04% 0.02% 0.02% 0.04% 0.01% 0.31% 0.31% 0.26% 0.47% 0.28% 4.15% 6.32% 4.63% 12.03% 1,975 2,058 2,405 2,479 2,210 2.94% 2.97% 3.34% 3.50% 3.28% 10,311 20,138 13,372 31,336 15.349 29.049 18.589 44.259 42.549 3.49% 7.94% 205 215 190 336 192 3.06% 3.37% 2.98% 2,199 16 28,697 2,387 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% 57,992 59,106 49,639 46,627 63,873 63,731 61,314 0.04% 0.02% 0.05% 0.03% 0.01% 0.02% 0.01% 6,833 3,073 13,125 3,934 2,613 3,294 3,080 9.31% 4.64% 18.69% 5.55% 3.68% 4.58% 4.58% 15,387 7,052 20,582 24,202 7,178 8,238 7,153 306 96 135 3.63% 2.35% 2.63% 4.13% 3.06% 3.20% 3.20% 3.20% 3.27% 3.27% 3.27% 3.27% 3.31% 3.31% 3.31% 3.31% 3.55% 3.55% 73,379 79.03% 89.34% 70.69% 65.83% 89.90% 88.55% 89.55% 92.31% 82.92% 87.40% 51.34% 90.46% 89.24% 90.46% 89.24% 90.46% 90.17% 93.81% 92.09% 88.89% 87.83% 91.48% 91.48% 93.86% 3,931 737 5.36% 1.11% 0.42% 1,399 1,422 3,609 375 974 643 1.91% 2.16% 29 12 228 151 194 196 175 167 0.31% 0.23% 2,661 1,556 20.979 10.669 0.19% 0.71% 0.37% 0.49% 70,221 70,829 71,051 71,969 68,467 70,036 2.33% 22.94 1.37% 2.04% 0.28% 0.28% 0.25% 0.23% 1,850 2,926 2,173 2,303 29.31 34.17 10.10 11.45 1,635 16,250 5.13% 502 261 354 974 1,466 100.00% 100.00% 100.00% 100.00% 1.47% 0.44% 5.11% 4.20% 0.24% 0.34% 2.10% 0.22% 0.01% 0.03% 0.03% 0.03% 3,080 2,113 3,526 3,250 4.50% 3.02% 4.77% 4.50% 2,101 2,287 2,529 1,646 7,153 5,389 12,635 0.89% 0.38% 1.41% 1.17% 0.279 0.219 0.259 0.209 61.314 64,647 61.324 63,087 35,432 65,016 64,897 66,147 68,263 66,283 66,897 64,478 64,047 1,004 186 150 182 144 326 247 157 153 10.459 7.69% 3,780 73,959 72,182 3,035 22,028 727 1,123 1,708 4.20% 31.92% 1.01% 1.54% 2.33% 0.22% 0.29% 0.37% 0.33% 0.34% 2,288 2,453 2,367 2,311 69,020 71,873 72,724 73,355 72,801 72,792 72,641 72,534 72,924 100.009 100.009 100.009 100.009 100.009 100.009 100.009 100.009 0.06% 0.08% 0.00% 0.00% 0.02% 0.01% 0.01% 0.02% 0.47% 0.34% 0.22% 0.21% 0.21% 0.20% 0.25% 0.27% 0.27% 11.32% 2.48% 4.84% 3.30% 2.76% 1.64% 1.89% 4.81% 5.68% 33,588 6,857 7,827 7,208 4,534 4,534 4,509 5,744 8,056 8,877 48.66% 9.54% 10.76% 9.83% 6.23% 6.19% 7.91% 11.11% 12.17% 202 263 239 247 1.29% 1.85% 0.58% 0.29% 0.36% 0.36% 0.45% 0.40% 7,811 1,782 3,521 2,424 1,33<sup>-</sup> 420 362 0.27% 0.53% 0.57% 0.51% 2,311 1,738 2,268 2,581 2,569 2,596 228 251 833 1,09 912 131 147 179 195 171 0.31% 0.34% 1.15% 1.50% 1.25% 200 385 413 372 749 2,010 1,195 1,370 3,491 4,142 69,947 66,611 68,268 2,330 2,429 2,393 2,347 6,511 5,260 4,468 352 3.18% 3.33% 76,458 71,871 100.00% 100.00% 0.46% 875 .14% 0.73% 0.03% 216 193 0.28% 2,057 1,406 2.69% 1.96% 8.52% 72,736 100.005 0.51% 0.339 1,135 6.14% 0.289 1.56% 3.23% 100.00% 100.00% 100.00% 100.00% 70,743 64,729 63,027 64,831 68,640 93.74% 85.31% 87.00% 88.58% 92.71% 75,466 75,875 166 1,055 0.22% 772 1.02% 238 364 0.32% 0.48% 0.01% 172 0.23% 796 1,081 1.05% 1.42% 2,570 3,624 3.41% 4.78% 4,723 11,146 6.26% 14.69% 72,443 73,187 9,416 8,356

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	65,520 69,719	112.26% 109.29%	22,683 55,432	79.51%	26,750 8,688	40.83% 12.46%	2,171 2,119	3.04%	601 1,171	0.92% 1.68%	108 82	0.12%	21,241 8,706	32.42% 12.49%	42,837 14,287	65.38% 20.49%
	66,030	106.32%	39,010	59.08%	22,803	34.53%	994	1.51%	2,641	4.00%	63 57	0.10%	4,690	7.10%	27,020	40.92%
	64,833 71,629	103.90% 103.78%	27,075 29,522	41.76% 41.22%	37,335 40,992	57.59% 57.23%	601 828	0.93%	952 1,466	1.47% 2.05%	57 69	0.09%	1,344 1,463	2.07% 2.04%	37,758 42,107	58.24% 58.78%
	73,324	103.93%	30,744	41.93%	41,764	56.96%	924	1.26%	1,299	1.77%	50	0.07%	1,423	1.94%	42,580	58.07%
	75,856 76,299	104.67% 105.24%	39,466 37,635	52.03% 49.33%	35,022 35,182	46.17% 46.11%	1,121 1,556	1.48% 2.04%	1,808 3,983	2.38% 5.22%	92 68	0.12%	1,889 1,873	2.49% 2.45%	36,390 38,664	47.97% 50.67%
	66,200	105.24%	20,958	49.33% 31.66%	35,162	40.11% 53.61%	714	2.04%	3,963 10,776	5.22% 16.28%	74	0.09%	1,075	2.45%	45,242	68.34%
	74,475	104.08%	42,521	57.09%	30,206	40.56%	892	1.20%	2,107	2.83%	67	0.09%	1,721	2.31%	31,954	42.91%
	70,700 68,955	103.70% 105.02%	38,639 38,466	54.65% 55.78%	31,371 29,602	44.37% 42.93%	1,011 1,565	1.43% 2.27%	915 1,115	1.29% 1.62%	45 67	0.06%	1,334 1,599	1.89% 2.32%	32,061 30,489	45.35% 44.22%
	69,812	103.02 %	39,086	55.99%	27,965	42.93%	1,209	1.73%	3,066	4.39%	62	0.09%	1,399	1.99%	30,726	44.22%
	69,140	104.47%	32,756	47.38%	29,721	42.99%	1,221	1.77%	6,869	9.93%	66	0.10%	1,600	2.31%	36,384	52.62%
	69,652	105.77%	61,757	88.67%	5,659	8.12% 56.94%	1,154	1.66%	1,968 1,042	2.83% 1.45%	72 49	0.10%	3,063 1,748	4.40%	7,895	11.33%
~~~~~	72,066 71,354	104.36% 104.79%	30,110 38,043	41.78% 53.32%	41,034 31,690	56.94% 44.41%	1,222 1,342	1.70% 1.88%	1,042	2.43%	49 41	0.07%	1,746	2.43% 2.70%	41,956 33,311	58.22% 46.68%
	75,714	104.67%	31,213	41.22%	41,245	54.47%	1,080	1.43%	3,574	4.72%	62	0.08%	2,078	2.74%	44,501	58.78%
	72,930 74,684	104.23% 104.20%	47,542 60,508	65.19% 81.02%	19,308 8,177	26.47% 10.95%	641 724	0.88% 0.97%	6,388 6,120	8.76% 8.19%	43 61	0.06% 0.08%	2,096 2,227	2.87% 2.98%	25,388 14,176	34.81% 18.98%
	71,599	104.20%	46,139	64.44%	6,157	8.60%	724	1.08%	19,142	26.74%	63	0.08%	2,227	3.48%	25,460	35.56%
	75,487	104.35%	68,952	91.34%	2,030	2.69%	987	1.31%	4,482	5.94%	38	0.05%	2,283	3.02%	6,535	8.66%
	76,266 69,996	105.88% 105.21%	59,937 48,228	78.59% 68.90%	4,499 7,585	5.90% 10.84%	801 1,057	1.05% 1.51%	12,604 14,281	16.53% 20.40%	116 54	0.15%	2,795 2,436	3.66% 3.48%	16,329 21,768	21.41% 31.10%
	73,216	106.02%	53,330	72.84%	15,553	21.24%	1,803	2.46%	4,062	5.55%	75	0.10%	2,802	3.83%	19,886	27.16%
	70,678	106.12%	42,491	60.12%	26,960	38.14%	1,871	2.65%	1,169	1.65%	81	0.11%	2,431	3.44%	28,187	39.88%
	73,737 71,385	106.14% 106.81%	69,039 60,904	93.63% 85.32%	2,697 7,199	3.66% 10.08%	1,941 1,984	2.63% 2.78%	1,179 2,623	1.60%	78 72	0.11% 0.10%	3,331 3,466	4.52% 4.86%	4,698 10,481	6.37% 14.68%
•••••	72,381	106.73%	60,533	83.63%	9,544	13.19%	2,105	2.78%	1,285	3.67% 1.78%	71	0.10%	3,712	5.13%	11,848	16.37%
	73,606	105.11%	70,287	95.49%	2,178	2.96%	1,814	2.46%	702	0.95%	41	0.06%	2,343	3.18%	3,319	4.51%
	73,558 73,449	105.78% 108.12%	59,438 47,847	80.80% 65.14%	12,769 21,583	17.36% 29.39%	1,876 1,822	2.55% 2.48%	1,276 3,736	1.73% 5.09%	75 138	0.10% 0.19%	2,374 4,285	3.23% 5.83%	14,120 25,602	19.20% 34.86%
	73,449 74,822	108.12%	47,847 58,204	65.14% 77.79%	21,583 6,943	29.39% 9.28%	1,822	2.48% 1.68%	3,736 9,654	5.09% 12.90%	138	0.19%	4,285 3,820	5.83% 5.11%	25,602	34.86%
	73,142	106.00%	68,433	93.56%	2,672	3.65%	1,903	2.60%	601	0.82%	37	0.05%	3,883	5.31%	4,709	6.44%
	71,335 68,621	104.57% 105.32%	68,418 63,438	95.91% 92.45%	1,485 2,487	2.08%	1,670 1,643	2.34% 2.39%	604 715	0.85%	55 52	0.08%	2,364 3,940	3.31% 5.74%	2,917 5,183	4.09%
	68,621 71,787	105.32% 106.34%	63,438 63,171	92.45% 88.00%	2,487 5,398	3.62% 7.52%	1,643 2,126	2.39% 2.96%	715 1,758	1.04% 2.45%	52 119	0.08% 0.17%	3,940 3,768	5.74% 5.25%	5,183 8,616	7.55%
	73,770	105.21%	57,358	77.75%	13,326	18.06%	1,469	1.99%	1,534	2.08%	59	0.08%	3,866	5.24%	16,412	22.25%
	69,482 69,763	106.55% 105.43%	64,107 60,372	92.26% 86 54%	1,712	2.46% 8.02%	2,389 1,359	3.44%	509 3,566	0.73%	79 66	0.11%	5,239 2,591	7.54%	5,375 9,391	7.74%
	69,763 72,876	105.43% 107.22%	60,372 52,610	86.54% 72.19%	5,596 16,347	8.02% 22.43%	1,359 1,946	1.95% 2.67%	2,385	5.11% 3.27%	66 89	0.09%	2,591 4,763	3.71% 6.54%	9,391 20,266	13.46% 27.81%
	70,454	105.30%	66,247	94.03%	2,849	4.04%	1,768	2.51%	1,043	1.48%	52	0.07%	2,228	3.16%	4,207	5.97%
	70,016	104.70% 106.38%	67,189 54,109	95.96%	778 11,287	1.11%	1,588 1,845	2.27%	566 2,630	0.81%	56 75	0.08% 0.11%	3,127 3,222	4.47% 4.68%	2,827 14,673	4.04%
	68,782 71,054	104.20%	68,839	78.67% 96.88%	1,200	16.41% 1.69%	1,668	2.68% 2.35%	561	3.82% 0.79%	44	0.06%	1,729	2.43%	2,215	21.33% 3.12%
	71,551	105.40%	60,413	84.43%	9,790	13.68%	1,730	2.42%	1,129	1.58%	55	0.08%	2,296	3.21%	11,138	15.57%
	73,378 74.656	105.92% 105.08%	66,818 66,976	91.06% 89.71%	3,022 1,766	4.12% 2.37%	1,367 1,393	1.86% 1.87%	3,810 5,998	5.19% 8.03%	99 48	0.13%	2,608 2,268	3.55% 3.04%	6,560 7,680	8.94% 10.29%
	74,030	103.08%	65,512	88.21%	4,791	6.45%	1,393	1.87%	3,561	4.79%	76	0.10%	2,200	3.71%	8,755	11.79%
	72,160	104.66%	70,385	97.54%	515	0.71%	1,645	2.28%	843	1.17%	109	0.15%	2,025	2.81%	1,775	2.46%
	72,488 72,818	105.22% 105.63%	69,698 68,125	96.15% 93.56%	1,215 2,442	1.68% 3.35%	1,564 1,505	2.16% 2.07%	1,323 1,593	1.83% 2.19%	52 44	0.07%	2,423 3,211	3.34% 4.41%	2,790 4,693	3.85% 6.44%
	71,476	108.11%	39,868	55.78%	25,083	35.09%	1,693	2.37%	1,998	2.80%	81	0.11%	8,549	11.96%	31,608	44.22%
	73,853	105.46%	59,957	81.18%	5,862	7.94%	1,105	1.50%	7,633	10.34%	54	0.07%	3,274	4.43%	13,896	18.82%
	71,848 71,737	105.13% 104.35%	58,512 54,150	81.44% 75.48%	2,955 2,885	4.11% 4.02%	954 813	1.33% 1.13%	9,936 14,660	13.83% 20.44%	55 58	0.08% 0.08%	3,125 2,295	4.35% 3.20%	13,336 17,587	18.56% 24.52%
	71,864	103.98%	57,715	80.31%	3,905	5.43%	728	1.01%	10,478	14.58%	53	0.07%	1,842	2.56%	14,149	19.69%
	73,423	104.51%	62,134	84.62%	6,334	8.63%	1,045	1.42%	5,130	6.99%	70	0.10%	2,019	2.75%	11,289	15.38%
•••••	70,271 72,453	104.13% 104.53%	65,143 63,874	92.70% 88.16%	2,110 5,669	3.00% 7.82%	859 1,014	1.22% 1.40%	2,965 2,910	4.22% 4.02%	53 46	0.08%	2,040 2,225	2.90% 3.07%	5,128 8,579	7.30% 11.84%
	75,006	104.00%	61,385	81.84%	11,355	15.14%	1,290	1.72%	2,442	3.26%	55	0.07%	2,046	2.73%	13,621	18.16%
	74,114	104.94%	62,963	84.95%	9,773	13.19%	1,569	2.12%	1,494	2.02%	79	0.11%	1,897	2.56%	11,151	15.05%
	72,589 71,638	104.45% 104.87%	69,049 67,390	95.12% 94.07%	2,536 3,222	3.49% 4.50%	1,502 1,653	2.07% 2.31%	880 704	1.21% 0.98%	36 54	0.05%	1,817 2,103	2.50% 2.94%	3,540 4,248	4.88% 5.93%
	73,184	104.85%	69,489	94.95%	2,096	2.86%	1,573	2.15%	455	0.62%	61	0.08%	3,056	4.18%	3,695	5.05%
	71,767	105.16%	68,598	95.58%	1,164	1.62%	1,385	1.93%	1,483	2.07%	36	0.05%	2,804	3.91%	3,169	4.42%
	73,721 73,273	105.26% 105.48%	69,927 66,310	94.85% 90.50%	2,851 5,131	3.87% 7.00%	2,076 1,827	2.82% 2.49%	517 1,619	0.70%	46 64	0.06%	2,182 2,338	2.96% 3.19%	3,794 6,963	5.15% 9.50%
	71,476	105.31%	55,244	77.29%	15,136	21.18%	1,832	2.56%	876	1.23%	43	0.06%	2,141	3.00%	16,232	22.71%
	68,117	105.82%	31,216	45.83%	36,095	52.99%	1,734	2.55%	605	0.89%	74 88	0.11%	2,357	3.46%	36,901	54.17%
	72,963 72,890	104.57% 105.29%	71,297 67,461	97.72% 92.55%	756 4,057	1.04% 5.57%	1,717 1,734	2.35% 2.38%	522 1,298	0.72% 1.78%	49	0.12%	1,921 2,146	2.63% 2.94%	1,666 5,429	2.28% 7.45%
	75,397	104.41%	63,231	83.86%	5,453	7.23%	1,198	1.59%	6,176	8.19%	91	0.12%	2,571	3.41%	12,166	16.14%
	70,233	108.67%	51,544	73.39%	14,146	20.14%	1,993	2.84%	3,447	4.91%	100	0.14%	5,091	7.25%	18,689	26.61%
	75,207 73,043	105.52% 105.74%	65,643 63,767	87.28% 87.30%	4,030 6,519	5.36% 8.92%	1,425 1,639	1.89% 2.24%	5,174 2,084	6.88% 2.85%	75 79	0.10% 0.11%	3,008 3,149	4.00% 4.31%	9,564 9,276	12.72% 12.70%
·····	72,106	107.83%	59,521	82.55%	8,986	12.46%	1,948	2.70%	2,022	2.80%	107	0.15%	5,165	7.16%	12,585	17.45%
	71,687	104.01%	66,961	93.41%	3,542	4.94%	1,365	1.90%	477	0.67%	57	0.08%	2,157	3.01%	4,726	6.59%
	67,213 69,344	104.59% 105.24%	60,352 53,108	89.79% 76.59%	3,349 8,850	4.98% 12.76%	1,156 1,063	1.72% 1.53%	2,657 5,975	3.95% 8.62%	91 62	0.14%	2,691 3,923	4.00% 5.66%	6,861 16,236	10.21% 23.41%
	71,975	105.31%	62,821	87.28%	5,948	8.26%	1,250	1.74%	2,678	3.72%	90	0.13%	3,008	4.18%	9,154	12.72%
	70,814	107.07%	45,027	63.58%	19,278	27.22%	1,504	2.12%	2,859	4.04%	102	0.14%	7,053	9.96%	25,787	36.42%
	67,461 73,379	110.33% 106.47%	47,388 63,650	70.25% 86.74%	7,371 5,032	10.93% 6.86%	2,034 1,720	3.02% 2.34%	2,360 1,869	3.50% 2.55%	80 98	0.12% 0.13%	15,198 5,754	22.53% 7.84%	20,073 9,729	29.75% 13.26%
	66,158	104.16%	62,468	94.42%	1,096	1.66%	884	1.34%	1,689	2.55%	86	0.13%	2,688	4.06%	3,690	5.58%
	70,221	108.61%	57,825	82.35%	2,333	3.32%	1,448	2.06%	4,093	5.83%	107	0.15%	10,463	14.90%	12,396	17.65%
	70,829 71,051	105.86% 104.68%	51,608 67,810	72.86% 95.44%	17,394 1,348	24.56% 1.90%	2,066 1,363	2.92% 1.92%	631 1,249	0.89% 1.76%	73 54	0.10%	3,206 2,553	4.53% 3.59%	19,221 3,241	27.14% 4.56%
	71,969	104.58%	67,936	94.40%	1,909	2.65%	1,536	2.13%	924	1.28%	59	0.08%	2,900	4.03%	4,033	5.60%
	68,467	104.75%	65,095	95.07%	1,445	2.11%	1,194	1.74%	932	1.36%	54	0.08%	2,997	4.38%	3,372	4.93%
	70,036 73,959	104.42% 104.94%	68,261 66,031	97.47% 89.28%	615 4,417	0.88% 5.97%	1,494 3,193	2.13% 4.32%	448 1,314	0.64% 1.78%	65 73	0.09%	2,250 2,584	3.21% 3.49%	1,775 7,928	2.53% 10.72%
·····	72,182	103.83%	66,856	92.62%	3,306	4.58%	1,092	1.51%	1,023	1.42%	45	0.06%	2,628	3.64%	5,326	7.38%
	69,020	106.83%	41,748	60.49%	23,772	34.44%	1,463	2.12%	1,136	1.65%	79	0.11%	5,536	8.02%	27,272	39.51%
	71,873 72,724	104.61% 105.08%	68,779 69,790	95.70% 95.97%	1,065 1,717	1.48% 2.36%	1,584 1,579	2.20% 2.17%	1,586 629	2.21% 0.86%	91 24	0.13% 0.03%	2,078 2,682	2.89% 3.69%	3,094 2,934	4.30% 4.03%
	73,355	104.47%	70,150	95.63%	2,021	2.36%	1,559	2.17%	466	0.64%	24 28	0.03%	2,002	3.29%	3,205	4.03%
	72,801	103.41%	71,318	97.96%	398	0.55%	1,307	1.80%	313	0.43%	40	0.05%	1,909	2.62%	1,483	2.04%
	72,792 72,641	103.89% 104.46%	71,365 70,424	98.04% 96.95%	478 1,273	0.66% 1.75%	1,795 1,914	2.47% 2.63%	418 586	0.57% 0.81%	34 46	0.05%	1,534 1,641	2.11% 2.26%	1,427 2,217	1.96% 3.05%
	72,641 72,534	104.46% 104.92%	70,424 69,427	96.95% 95.72%	1,273	1.75% 2.18%	1,914	2.63%	586	0.81%	46 72	0.06%	2,619	2.26% 3.61%	2,217 3,107	3.05% 4.28%
•••••	72,924	105.62%	69,119	94.78%	1,239	1.70%	2,400	3.29%	497	0.68%	49	0.07%	3,717	5.10%	3,805	5.22%
	76,458	104.38%	73,658	96.34%	679 485	0.89%	2,169	2.84%	817 540	1.07%	75	0.10%	2,412	3.15%	2,800	3.66%
	71,871 72,736	104.26% 104.06%	69,921 71,407	97.29% 98.17%	485 417	0.67% 0.57%	2,117 1,829	2.95% 2.51%	540 408	0.75% 0.56%	93 66	0.13%	1,776 1,564	2.47% 2.15%	1,950 1,329	2.71% 1.83%
·····	75,466	103.98%	73,874	97.89%	427	0.57%	2,381	3.16%	440	0.58%	77	0.10%	1,273	1.69%	1,592	2.11%
	75,875	105.49%	69,042	90.99%	1,332	1.76%	7,537	9.93%	570	0.75%	138 77	0.18%	1,421	1.87%	6,833	9.01%
	72,443	104.64%	66,545	91.86%	2,123	2.93%	5,497	7.59%	459	0.63%		0.11%	1,102	1.52%	5,898	8.14%

Def. App. 209a

	·····3	VAPTOT 65,520	PercentTot 103.09%	VAPNHWH_C 13,664	20.85%	VAPNHBL_C 26.018	PVAPNHBL_C 39.71%	VAPNHNA_C 757	PVAPNHNA_C 1.16%	VAPNHAS_C 540	PVAPNHAS_C 0.82%	VAPNHPI_C 82	PVAPNHPI_C \ 0.13%	APNHOT_C 610	PVAPNHOT_C	VAPHISP 25.875	PVAPHisp 39.49%	PopNonW 51,856	PPopNonW 79.15%
••		69,719 66,030	103.05% 103.89%	49,662 36,757	71.23% 55.67%	8,392 22,470	12.04% 34.03%	1,593 730	2.28%	1,114 2,603	1.60% 3.94%	63 43	0.09%	835 953	1.20% 1.44%	10,881 5,043	15.61% 7.64%	20,057 29,273	28.77% 44.33%
•••		64,833 71,629	103.38% 102.95%	26,645 28,738	41.10% 40.12%	37,091 40,782	57.21% 56.94%	512 744	0.79%	939 1,444	1.45% 2.02%	50 65	0.08%	749 752	1.16%	1,041 1,219	1.61% 1.70%	38,188 42,891	58.90% 59.88%
		73,324	103.09%	29,956	40.85%	41,455	56.54% 45.86%	814	1.11%	1,271	1.73%	45	0.06%	736 828	1.00%	1,311	1.79%	43,368	59.15%
•••		75,856 76,299	103.48% 104.17%	38,175 36,434	50.33% 47.75%	34,791 34,847	45.67%	958 1,410	1.26%	1,758 3,940	2.32% 5.16%	81 51	0.11%	803	1.09%	1,908 1,994	2.52% 2.61%	37,681 39,865	49.67% 52.25%
		66,200 74,475	103.84% 102.92%	20,465 41,318	30.91% 55.48%	35,242 29,950	53.24% 40.21%	641 786	0.97% 1.06%	10,738 2,080	16.22% 2.79%	64 62	0.10% 0.08%	612 699	0.92% 0.94%	977 1,752	1.48% 2.35%	45,735 33,157	69.09% 44.52%
2	}	70,700 68,955	102.89% 104.16%	37,830 37,599	53.51% 54.53%	31,139 29,356	44.04% 42.57%	945 1,435	1.34% 2.08%	884 1,073	1.25% 1.56%	39 48	0.06% 0.07%	621 880	0.88%	1,288 1,435	1.82% 2.08%	32,870 31,356	46.49% 45.47%
3		69,812 69,140	103.43% 103.73%	38,244 31,958	54.78% 46.22%	27,757 29,515	39.76% 42.69%	1,109 1,111	1.59% 1.61%	3,039 6,822	4.35% 9.87%	53 59	0.08%	688 777	0.99%	1,320 1,478	1.89% 2.14%	31,568 37,182	45.22% 53.78%
	}	69,652	103.66%	59,523 29,101	85.46%	5,506 40,749	7.91% 56.54%	979 1,055	1.41%	1,944 1,001	2.79%	60 45	0.09%	916 695	1.32%	3,271 1,759	4.70%	10,129 42,965	14.54%
,		72,066	103.25% 103.66%	36,901	40.38% 51.72%	31,426	44.04%	1,214	1.46%	1,713	1.39% 2.40%	38	0.06%	791	0.96%	1,882	2.44%	34,453	59.62% 48.28%
э		75,714 72,930	103.46% 102.85%	30,199 46,390	39.89% 63.61%	40,907 19,111	54.03% 26.20%	945 559	1.25% 0.77%	3,522 6,361	4.65% 8.72%	47 40	0.06%	894 842	1.18% 1.15%	1,817 1,704	2.40% 2.34%	45,515 26,540	60.11% 36.39%
) L	}	74,684 71,599	102.88% 102.70%	59,288 44,604	79.39% 62.30%	8,069 6,053	10.80% 8.45%	640 633	0.86% 0.88%	6,093 19,086	8.16% 26.66%	58 57	0.08%	1,000 899	1.34% 1.26%	1,684 2,198	2.25% 3.07%	15,396 26,995	20.61% 37.70%
2		75,487 76,266	102.75% 104.24%	67,337 57,508	89.20% 75.40%	1,940 4,364	2.57% 5.72%	873 665	1.16% 0.87%	4,463 12,544	5.91% 16.45%	28 111	0.04%	848 1,148	1.12% 1.51%	2,072 3,158	2.74% 4.14%	8,150 18,758	10.80% 24.60%
۰۰. ۱۰۰۰		69,996 73,216	103.34% 104.35%	46,524 51,558	66.47% 70.42%	7,419 15,347	10.60% 20.96%	900 1,619	1.29% 2.21%	14,245 4,020	20.35% 5.49%	47 58	0.07%	896 1,003	1.28% 1.37%	2,302 2,799	3.29% 3.82%	23,472 21,658	33.53% 29.58%
5 7	}	70,678	104.84%	41,012	58.03%	26,693 2,577	37.77%	1,677	2.37%	1,152 1,145	1.63%	72	0.10%	946	1.34%	2,549 3,939	3.61%	29,666	41.97%
3		73,737 71,385	103.74% 104.37%	66,158 58,165	89.72% 81.48%	7,053	3.49% 9.88%	1,680 1,813	2.28% 2.54%	2,591	1.55% 3.63%	60 63	0.08%	939 990	1.27% 1.39%	3,827	5.34% 5.36%	7,579 13,220	10.28% 18.52%
) )	}	72,381 73,606	104.63% 103.86%	58,007 68,643 57,729	80.14% 93.26%	9,367 2,105	12.94% 2.86%	1,874 1,650	2.59% 2.24%	1,243 686	1.72% 0.93%	59 37	0.08% 0.05%	1,118 960	1.54% 1.30%	4,065 2,365	5.62% 3.21%	14,374 4,963	19.86% 6.74%
L		73,558 73,449	104.44% 105.85%	57,729 45,443	78.48% 61.87%	12,451 21,210	16.93% 28.88%	1,733 1,511	2.36% 2.06%	1,243 3,688	1.69% 5.02%	68 128	0.09% 0.17%	994 1,199	1.35% 1.63%	2,605 4,564	3.54% 6.21%	15,829 28,006	21.52% 38.13%
3		74,822 73,142	104.40% 103.53%	55,740 64,847	74.50% 88.66%	6,712 2,504	8.97% 3.42%	992 1,595	1.33% 2.18%	9,607 576	12.84% 0.79%	99 25	0.13% 0.03%	1,051 856	1.40% 1.17%	3,915 5,321	5.23% 7.27%	19,082 8,295	25.50% 11.34%
5		71,335 68,621	103.34% 103.87%	66,994 61,927	93.91% 90.24%	1,423 2,434	1.99% 3.55%	1,524 1,428	2.14% 2.08%	583 689	0.82% 1.00%	45 39	0.06%	805 1,025	1.13% 1.49%	2,344 3,732	3.29% 5.44%	4,341 6,694	6.09% 9.76%
, ,		71,787	104.65%	61,262	85.34%	5,225	7.28%	1,930	2.69%	1,716	2.39%	105	0.15%	1,173	1.63%	3,715	5.18%	10,525	14.66%
		73,770 69,482	103.46% 104.25%	55,467 61,492	75.19% 88.50%	13,187 1,640	17.88% 2.36%	1,271 2,037	1.72% 2.93%	1,506 486	2.04% 0.70%	49 58	0.07%	1,017	1.38% 1.47%	3,824 5,699	5.18% 8.20%	18,303 7,990	24.81% 11.50%
) 		69,763 72,876	103.81% 105.23%	58,712 50,227	84.16% 68.92%	5,411 16,009	7.76% 21.97%	1,151 1,537	1.65% 2.11%	3,543 2,330	5.08% 3.20%	63 81	0.09%	853 1,117	1.22% 1.53%	2,691 5,390	3.86% 7.40%	11,051 22,649	15.84% 31.08%
2	}	70,454 70,016	104.22% 103.26%	65,010 65,440	92.27% 93.46%	2,770 682	3.93% 0.97%	1,667 1,433	2.37% 2.05%	1,025 548	1.45% 0.78%	44 52	0.06% 0.07%	1,018 939	1.44% 1.34%	1,892 3,207	2.69% 4.58%	5,444 4,576	7.73% 6.54%
•		68,782 71,054	104.66% 103.25%	51,986 67,567	75.58% 95.09%	11,074 1,141	16.10% 1.61%	1,618 1,542	2.35% 2.17%	2,594 545	3.77% 0.77%	60 32	0.09%	852 779	1.24% 1.10%	3,804 1,759	5.53% 2.48%	16,796 3,487	24.42% 4.91%
,		71,551 73,378	104.17% 104.15%	58,812 65,001	82.20% 88.58%	9,650 2,888	13.49% 3.94%	1,547 1,168	2.16% 1.59%	1,096 3,757	1.53% 5.12%	52 87	0.07% 0.12%	847 1,000	1.18% 1.36%	2,534 2,520	3.54% 3.43%	12,739 8,377	17.80% 11.42%
3		74,656 74,267	103.61%	65,476 63,795	87.70% 85.90%	1,696	2.27%	1,248 1,152	1.67% 1.55%	5,953 3,519	7.97%	44 70	0.06%	1,024	1.37%	1,912	2.56%	9,180 10,472	12.30%
<u>َ</u> ر		72,160	103.41%	68,956	95.56%	495	0.69%	1,529	2.12%	821	1.14%	103	0.14%	883	1.22%	1,836	2.54%	3,204	4.44%
L		72,488 72,818	103.73% 103.60%	68,159 65,728	94.03% 90.26%	1,153 2,328	1.59% 3.20%	1,445 1,345	1.99% 1.85%	1,301 1,535	1.79% 2.11%	50 37	0.07% 0.05%	1,126 961	1.55% 1.32%	1,960 3,506	2.70% 4.81%	4,329 7,090	5.97% 9.74%
3		71,476 73,853	103.84% 103.42%	35,147 57,877	49.17% 78.37%	24,532 5,721	34.32% 7.75%	1,187 920	1.66% 1.25%	1,954 7,583	2.73% 10.27%	67 49	0.09% 0.07%	813 1,029	1.14% 1.39%	10,519 3,199	14.72% 4.33%	36,329 15,976	50.83% 21.63%
5 5		71,848 71,737	103.05% 102.82%	56,609 52,740	78.79% 73.52%	2,881 2,811	4.01% 3.92%	777 666	1.08% 0.93%	9,898 14,628	13.78% 20.39%	46 52	0.06% 0.07%	969 756	1.35% 1.05%	2,857 2,107	3.98% 2.94%	15,239 18,997	21.21% 26.48%
7		71,864 73,423	102.86% 103.41%	56,628 60,923	78.80% 82.98%	3,828 6,246	5.33% 8.51%	635 948	0.88% 1.29%	10,454 5,112	14.55% 6.96%	49 62	0.07%	698 862	0.97% 1.17%	1,629 1,771	2.27% 2.41%	15,236 12,500	21.20% 17.02%
ģ		70,271	102.78%	63,886	90.91%	2,061	2.93%	768	1.09%	2,944	4.19%	47	0.07%	767	1.09%	1,755	2.50%	6,385	9.09%
L		72,453 75,006	103.19% 103.58%	62,510 60,133	86.28% 80.17%	5,579 11,194	7.70% 14.92%	913 1,165	1.26% 1.55%	2,889 2,416	3.99% 3.22%	37 49	0.05% 0.07%	888 841	1.23% 1.12%	1,949 1,890	2.69% 2.52%	9,943 14,873	13.72% 19.83%
3		74,114 72,589	103.83% 103.53%	61,714 67,923	83.27% 93.57%	9,634 2,478	13.00% 3.41%	1,438 1,421	1.94% 1.96%	1,457 850	1.97% 1.17%	65 33	0.09%	900 903	1.21% 1.24%	1,745 1,543	2.35% 2.13%	12,400 4,666	16.73% 6.43%
1 5	}	71,638 73,184	103.67% 103.26%	65,734 67,711	91.76% 92.52%	3,087 2,013	4.31% 2.75%	1,488 1,396	2.08% 1.91%	667 432	0.93% 0.59%	47 58	0.07% 0.08%	879 939	1.23% 1.28%	2,364 3,018	3.30% 4.12%	5,904 5,473	8.24% 7.48%
5		71,767 73,721	103.42% 104.20%	66,869 68,490	93.18% 92.90%	1,089 2,772	1.52% 3.76%	1,236 1,917	1.72% 2.60%	1,460 503	2.03% 0.68%	34 40	0.05%	957 1,105	1.33% 1.50%	2,576 1,991	3.59% 2.70%	4,898 5,231	6.82% 7.10%
3	}	73,273 71,476	104.11% 104.18%	64,510 53,723	88.04% 75.16%	5,017 14,994	6.85% 20.98%	1,656 1,686	2.26% 2.36%	1,592 847	2.17% 1.19%	60 40	0.08%	980 919	1.34% 1.29%	2,466 2,252	3.37% 3.15%	8,763 17,753	11.96% 24.84%
		68,117 72,963	104.57% 103.54%	29,589 69,916	43.44% 95.82%	35,769 709	52.51%	1,521 1,573	2.23% 2.16%	583 485	0.86%	60 69	0.09%	730	1.07% 1.31%	2,976 1,835	4.37% 2.51%	38,528 3,047	56.56% 4.18%
2		72,890	103.93%	65,856	90.35%	3,987	0.97% 5.47%	1,611	2.21%	1,278	1.75%	44	0.06%	878	1.20%	2,097	2.88%	7,034	9.65%
3		75,397 70,233	103.13% 105.33%	61,411 47,755	81.45% 68.00%	5,387 13,599	7.14% 19.36%	1,060 1,595	1.41% 2.27%	6,144 3,394	8.15% 4.83%	86 81	0.11% 0.12%	800 956	1.06% 1.36%	2,868 6,596	3.80% 9.39%	13,986 22,478	18.55% 32.00%
5 ~		75,207 73,043	103.75% 103.69%	63,558 61,330	84.51% 83.96%	3,869 6,316	5.14% 8.65%	1,227 1,399	1.63% 1.92%	5,128 2,047	6.82% 2.80%	70 64	0.09%	960 796	1.28% 1.09%	3,215 3,783	4.27% 5.18%	11,649 11,713	15.49% 16.04%
3	}	72,106 71,687	104.59% 102.85%	55,686 65,266	77.23% 91.04%	8,531 3,482	11.83% 4.86%	1,505 1,254	2.09% 1.75%	1,961 464	2.72% 0.65%	89 46	0.12%	1,044 728	1.45% 1.02%	6,597 2,490	9.15% 3.47%	16,420 6,421	22.77% 8.96%
		67,213 69,344	103.09% 103.12%	58,810 51,095	87.50% 73.68%	3,203 8,531	4.77% 12.30%	1,010 793	1.50% 1.14%	2,636 5,923	3.92% 8.54%	86 49	0.13% 0.07%	758 736	1.13% 1.06%	2,787 4,380	4.15% 6.32%	8,403 18,249	12.50% 26.32%
,		71,975	103.52%	60,877	84.58%	5,760	8.00%	1,051	1.46%	2,638	3.67%	75	0.10%	780	1.08%	3,329	4.63%	11,098	15.42%
3	}	70,814 67,461	103.77% 103.49%	41,646 40,842	58.81% 60.54%	18,632 6,703	26.31% 9.94%	1,015 1,036	1.43% 1.54%	2,811 2,297	3.97% 3.40%	75 49	0.11%	786 698	1.11%	8,520 18,188	12.03% 26.96%	29,168 26,619	41.19% 39.46%
1 5		73,379 66,158	103.83% 102.43%	60,536 60,625	82.50% 91.64%	4,754 994	6.48% 1.50%	1,371 707	1.87% 1.07%	1,823 1,662	2.48% 2.51%	83 77	0.11% 0.12%	792 627	1.08% 0.95%	6,833 3,073	9.31% 4.64%	12,843 5,533	17.50% 8.36%
5		70,221 70,829	102.77% 104.33%	51,416 49,357	73.22% 69.68%	2,056 17,189	2.93% 24.27%	797 1,794	1.13% 2.53%	3,994 601	5.69% 0.85%	94 67	0.13%	684 953	0.97% 1.35%	13,125 3,934	18.69% 5.55%	18,805 21,472	26.78% 30.32%
3	}	71,051 71,969	103.17% 103.30%	66,009 66,000	92.90% 91.71%	1,297 1,848	1.83% 2.57%	1,208 1,371	1.70% 1.90%	1,225 896	1.72% 1.24%	52 49	0.07%	896 884	1.26% 1.23%	2,613 3,294	3.68% 4.58%	5,042 5,969	7.10% 8.29%
· )		68,467 70,036	103.18% 103.34%	63,359 66,908	92.54% 95.53%	1,359 542	1.98% 0.77%	1,018 1,354	1.49% 1.93%	897 429	1.31% 0.61%	43 50	0.06%	886 981	1.29%	3,080 2,113	4.50% 3.02%	5,108 3,128	7.46%
2		73,959	103.56%	63,756	86.20%	4,311	5.83%	2,864	3.87%	1,301	1.76%	68	0.09%	766	1.04%	3,526	4.77%	10,203	13.80%
3 1		72,182 69,020	102.35% 103.56%	64,700 37,474	89.63% 54.29%	3,236 23,182	4.48% 33.59%	943 1,085	1.31% 1.57%	1,008 1,093	1.40% 1.58%	41 72	0.06% 0.10%	701 758	0.97% 1.10%	3,250 7,811	4.50% 11.32%	7,482 31,546	10.37% 45.71%
5		71,873 72,724	103.52% 103.37%	67,440 67,230	93.83% 92.45%	1,015 1,622	1.41% 2.23%	1,468 1,376	2.04% 1.89%	1,560 616	2.17% 0.85%	86 16	0.12%	1,050 791	1.46% 1.09%	1,782 3,521	2.48% 4.84%	4,433 5,494	6.17% 7.55%
3	{	73,355 72,801	103.20% 102.42%	68,426 69,982	93.28% 96.13%	1,965 345	2.68% 0.47%	1,443 1,172	1.97% 1.61%	452 304	0.62% 0.42%	24 33	0.03% 0.05%	971 720	1.32% 0.99%	2,424 2,010	3.30% 2.76%	4,929 2,819	6.72% 3.87%
· · · · ·		72,792 72,641	103.21% 103.75%	70,531 69,415	96.89% 95.56%	437 1,212	0.60% 1.67%	1,685 1,789	2.31% 2.46%	383 549	0.53% 0.76%	28 39	0.04%	873 990	1.20%	1,195 1,370	1.64% 1.89%	2,261 3,226	3.11%
1		72,534	103.67%	66,976	92.34%	1,435	1.98%	1,702	2.35%	485	0.67%	64	0.09%	1,045	1.44%	3,491	4.81%	5,558 6,303	7.66%
з 🗌		72,924 76,458	103.66% 103.28%	66,621 72,316	91.36% 94.58%	1,166 639	1.60% 0.84%	2,126 2,018	2.92% 2.64%	449 794	0.62%	43 58	0.06% 0.08%	1,048 1,082	1.44% 1.42%	4,142 2,057	5.68% 2.69%	4,142	8.64% 5.42%
4 5		71,871 72,736	103.47% 103.38%	68,963 70,590	95.95% 97.05%	442 387	0.61% 0.53%	2,012 1,711	2.80% 2.35%	518 377	0.72%	78 53	0.11% 0.07%	949 944	1.32% 1.30%	1,406 1,135	1.96% 1.56%	2,908 2,146	4.05% 2.95%
6 . 7	}	75,466 75,875	103.53% 104.92%	73,255 68,262	97.07% 89.97%	402 1,309	0.53% 1.73%	2,315 7,411	3.07% 9.77%	395 554	0.52% 0.73%	63 122	0.08%	905 870	1.20% 1.15%	796 1,081	1.05% 1.42%	2,211 7,613	2.93% 10.03%
8 9		72,443 73,187	104.01% 104.01%	65,888 67,639	90.95% 92.42%	2,072 2,102	2.86%	5,392 3,767	7.44% 5.15%	434 615	0.60%	65 34	0.09%	700 774	0.97%	904 1,191	1.25%	6,555 5,548	9.05% 7.58%
0	}	73,187 74,036	104.01%	70,842	92.42% 95.69%	2,102 573	2.87% 0.77%	1,837	2.48%	1,192	1.61%	34 62	0.05%	834	1.06%	1,191	1.63%	3,194	4.31%

	65,520	90.95%	15,937	PVAPWH_A 24.32%	25,826	39.42%	1,471	2.25%	360	PVAPAS_W 0.55%	52	0.08%	VAPOT_W 15,942	PVAPOT_W 24.33%	49,583	75.68%
	69,719	91.97%	49,521	71.03%	8,042	11.53%	684	0.98%	911	1.31%	53	0.08%	4,907	7.04%	20,198	28.97%
	66,030 64,833	95.15% 97.83%	35,432 25,214	53.66% 38.89%	22,165 36,653	33.57% 56.53%	482 375	0.73% 0.58%	1,892 368	2.87% 0.57%	34 25	0.05%	2,822 793	4.27% 1.22%	30,598 39,619	46.34% 61.11%
	71,629	98.04%	27,576	38.50%	40,255	56.20%	468	0.65%	1,209	1.69%	40	0.06%	679	0.95%	44,053	61.50%
	73,324	97.62%	28,568	38.96%	40,886	55.76%	393	0.54%	1,042	1.42%	31	0.04%	660	0.90%	44,756	61.04%
	75,856 76,299	97.04% 96.62%	36,718 34,497	48.40% 45.21%	34,175 34,053	45.05% 44.63%	498 596	0.66% 0.78%	1,381 3,588	1.82% 4.70%	53 42	0.07%	783 944	1.03% 1.24%	39,138 41,802	51.60% 54.79%
	66,200	96.62%	18,810	45.21% 28.41%	34,055	44.63% 52.47%	385	0.78%	9,900	4.70%	42 36	0.05%	944 675	1.24%	47,390	54.79% 71.59%
	74,475	97.47%	40,184	53.96%	29,446	39.54%	414	0.56%	1,799	2.42%	39	0.05%	709	0.95%	34,291	46.04%
	70,700 68.955	97.43%	36,493 35,597	51.62%	30,735	43.47% 41.68%	371 438	0.52%	718 944	1.02%	21	0.03%	544 689	0.77%	34,207 33,358	48.38% 48.38%
	68,955 69,812	96.37% 97.05%	35,597 36,678	51.62% 52.54%	28,737 27,235	41.68% 39.01%	438 401	0.64% 0.57%	944 2,820	1.37% 4.04%	46 32	0.07% 0.05%	586	1.00% 0.84%	33,358 33,134	48.38% 47.46%
	69,140	96.91%	30,232	43.73%	28,878	41.77%	443	0.64%	6,553	9.48%	40	0.06%	856	1.24%	38,908	56.27%
	69,652	95.04%	58,114	83.43%	5,225	7.50%	302	0.43%	1,366	1.96%	41	0.06%	1,146	1.65%	11,538	16.57%
	72,066	97.51%	27,788 35,350	38.56% 49.54%	40,226	55.82% 43.26%	526	0.73%	820	1.14%	26	0.04%	889 950	1.23%	44,278 36,004	61.44% 50.46%
	71,354 75,714	96.89% 97.53%	28,685	49.54% 37.89%	30,866 40,258	43.26%	506 444	0.71% 0.59%	1,442 3,276	2.02% 4.33%	20 50	0.03% 0.07%	950 1,133	1.33% 1.50%	47,029	50.46% 62.11%
•••••	72,930	97.15%	45,065	61.79%	18,749	25.71%	260	0.36%	5,940	8.14%	25	0.03%	812	1.11%	27,865	38.21%
	74,684	96.52%	57,712	77.27%	7,799	10.44%	175	0.23%	5,617	7.52%	36	0.05%	749	1.00%	16,972	22.73%
	71,599 75,487	96.40% 96.10%	43,355 65,913	60.55% 87.32%	5,828 1,777	8.14% 2.35%	241 157	0.34%	18,711 4,062	26.13% 5.38%	30 14	0.04%	858 617	1.20% 0.82%	28,244 9,574	39.45% 12.68%
	76,266	94.96%	55,944	73.35%	3,802	4.99%	189	0.25%	11,342	14.87%	87	0.11%	1,057	1.39%	20,322	26.65%
	69,996	95.75%	45,008	64.30%	7,128	10.18%	278	0.40%	13,818	19.74%	24	0.03%	765	1.09%	24,988	35.70%
•••••	73,216 70,678	95.38% 95.76%	49,571 38,961	67.71% 55.12%	14,771 25,941	20.17% 36.70%	516 609	0.70%	3,729 914	5.09% 1.29%	41 44	0.06%	1,208 1,214	1.65% 1.72%	23,645 31,717	32.29% 44.88%
	73,737	94.57%	64,873	87.98%	2,302	3.12%	462	0.63%	941	1.29%	39	0.05%	1,214	1.51%	8,864	12.02%
	71,385	93.91%	56,386	78.99%	6,736	9.44%	358	0.50%	2,358	3.30%	27	0.04%	1,170	1.64%	14,999	21.01%
	72,381	94.36%	56,198	77.64%	8,846	12.22%	450	0.62%	1,058	1.46%	33	0.05%	1,714	2.37%	16,183	22.36%
	73,606 73,558	95.33% 95.32%	66,762 55,695	90.70% 75.72%	1,790 12,034	2.43% 16.36%	289 434	0.39%	509 1,002	0.69% 1.36%	23 31	0.03%	792 918	1.08% 1.25%	6,844 17,863	9.30% 24.28%
	73,449	94.11%	42,957	58.49%	20,083	27.34%	604	0.82%	2,980	4.06%	95	0.13%	2,402	3.27%	30,492	41.51%
	74,822	94.39%	53,695	71.76%	6,115	8.17%	347	0.46%	8,814	11.78%	72	0.10%	1,580	2.11%	21,127	28.24%
	73,142 71,335	94.47% 95.81%	64,302 65,360	87.91% 91.62%	2,252 1,261	3.08% 1.77%	434 325	0.59% 0.46%	375 382	0.51% 0.54%	13 22	0.02%	1,721 994	2.35% 1.39%	8,840 5,975	12.09% 8.38%
	68,621	95.35%	60,102	87.59%	1,974	2.88%	458	0.46%	531	0.34%	19	0.03%	2,343	3.41%	8,519	12.41%
	71,787	94.57%	59,067	82.28%	4,674	6.51%	638	0.89%	1,503	2.09%	88	0.12%	1,921	2.68%	12,720	17.72%
	73,770 69,482	95.68% 94.21%	53,933 59,916	73.11% 86.23%	12,789 1,276	17.34% 1.84%	478 814	0.65% 1.17%	1,284 339	1.74% 0.49%	32 47	0.04% 0.07%	2,067 3,069	2.80% 4.42%	19,837 9,566	26.89% 13.77%
	69,482 69,763	94.21% 95.41%	59,916	86.23%	4,933	1.84% 7.07%	327	1.17% 0.47%	339 3,169	0.49% 4.54%	47 27	0.07%	1,116	4.42%	9,566	13.77%
	72,876	94.61%	48,204	66.15%	14,856	20.39%	746	1.02%	1,954	2.68%	47	0.06%	3,142	4.31%	24,672	33.85%
	70,454	95.20%	62,767	89.09%	2,320	3.29%	348	0.49%	808	1.15%	27	0.04%	803	1.14%	7,687	10.91%
	70,016 68,782	95.64% 94.72%	64,071 50,230	91.51% 73.03%	531 10,173	0.76% 14.79%	458 553	0.65%	379 2,391	0.54% 3.48%	18 27	0.03%	1,506 1,776	2.15% 2.58%	5,945 18,552	8.49% 26.97%
	71,054	96.18%	66,034	92.93%	881	1.24%	369	0.52%	414	0.58%	22	0.03%	620	0.87%	5,020	7.07%
	71,551	95.40%	56,919	79.55%	8,951	12.51%	462	0.65%	943	1.32%	22	0.03%	966	1.35%	14,632	20.45%
	73,378 74,656	94.95% 95.44%	62,900 63,462	85.72% 85.01%	2,444 1,422	3.33% 1.90%	272 241	0.37%	3,154 5,472	4.30% 7.33%	73 32	0.10%	829 621	1.13% 0.83%	10,478 11,194	14.28% 14.99%
	74,267	95.54%	62,073	83.58%	4,450	5.99%	274	0.37%	3,139	4.23%	50	0.07%	970	1.31%	12,194	16.42%
	72,160	95.63%	67,169	93.08%	353	0.49%	281	0.39%	589	0.82%	77	0.11%	537	0.74%	4,991	6.92%
	72,488 72.818	95.18% 94.83%	66,120 64,265	91.22% 88.25%	979 2,066	1.35% 2.84%	261 270	0.36%	1,018 1,237	1.40% 1.70%	26 28	0.04%	590 1,190	0.81%	6,368 8,553	8.78% 11.75%
	72,010	93.92%	34,954	48.90%	24,039	33.63%	768	1.07%	1,773	2.48%	49	0.07%	5,545	7.76%	36,522	51.10%
	73,853	95.41%	56,349	76.30%	5,375	7.28%	240	0.32%	7,140	9.67%	42	0.06%	1,316	1.78%	17,504	23.70%
	71,848 71,737	95.46% 96.26%	55,098 51,314	76.69% 71.53%	2,656 2,587	3.70% 3.61%	233 155	0.32%	9,493 14,124	13.21% 19.69%	31 42	0.04%	1,078 830	1.50% 1.16%	16,750 20,423	23.31% 28.47%
	71,864	96.62%	55,131	76.72%	3,657	5.09%	183	0.22%	9,767	13.59%	26	0.08%	674	0.94%	16,733	23.28%
	73,423	96.13%	59,139	80.55%	5,919	8.06%	197	0.27%	4,520	6.16%	27	0.04%	780	1.06%	14,284	19.45%
<b></b>	70,271	96.33%	62,464	88.89%	1,893	2.69%	158 184	0.22%	2,559	3.64%	24 27	0.03%	596	0.85%	7,807	11.11%
	72,453 75,006	96.03% 96.14%	60,859 58,242	84.00% 77.65%	5,274 10,660	7.28% 14.21%	301	0.25%	2,573 2,092	3.55% 2.79%	21	0.04%	659 793	0.91%	11,594 16,764	16.00% 22.35%
	74,114	95.84%	59,656	80.49%	9,203	12.42%	362	0.49%	1,164	1.57%	52	0.07%	592	0.80%	14,458	19.51%
	72,589	95.93%	66,013	90.94%	2,180	3.00%	299	0.41%	604	0.83%	10	0.01%	531	0.73%	6,576	9.06%
	71,638 73,184	95.60% 95.52%	64,148 66,128	89.54% 90.36%	2,686 1,834	3.75% 2.51%	388 295	0.54%	491 290	0.69% 0.40%	17 45	0.02%	754 1,316	1.05% 1.80%	7,490 7,056	10.46% 9.64%
	71,767	95.33%	65,152	90.78%	869	1.21%	238	0.33%	1,192	1.66%	18	0.03%	950	1.32%	6,615	9.22%
	73,721	95.12%	66,255	89.87%	2,505	3.40%	394	0.53%	318	0.43%	14	0.02%	636	0.86%	7,466	10.13%
	73,273 71,476	95.17% 95.56%	62,606 51,854	85.44% 72.55%	4,585 14,452	6.26% 20.22%	377 473	0.51% 0.66%	1,353 657	1.85% 0.92%	29 22	0.04%	782 845	1.07% 1.18%	10,667 19,622	14.56% 27.45%
	68,117	96.19%	28,088	41.23%	34,845	51.15%	734	1.08%	466	0.68%	44	0.06%	1,342	1.97%	40,029	58.77%
	72,963	95.77%	68,153 62,002	93.41%	516	0.71%	297	0.41%	338	0.46%	40	0.05%	532	0.73%	4,810	6.59%
	72,890 75,397	95.28% 96.10%	63,903 60,170	87.67% 79.80%	3,612 4,997	4.96% 6.63%	270 302	0.37%	988 5,707	1.36% 7.57%	27 58	0.04% 0.08%	652 1,219	0.89% 1.62%	8,987 15,227	12.33% 20.20%
	70,233	93.21%	46,322	65.95%	12,618	17.97%	684	0.97%	3,075	4.38%	55	0.08%	2,709	3.86%	23,911	34.05%
	75,207	95.20%	61,864	82.26%	3,410	4.53%	346	0.46%	4,669	6.21%	33	0.04%	1,274	1.69%	13,343	17.74%
	73,043 72,106	95.15% 93.66%	60,004 54,583	82.15% 75.70%	5,854 7,888	8.01% 10.94%	387 655	0.53% 0.91%	1,829 1,658	2.50% 2.30%	37 65	0.05%	1,387 2,687	1.90% 3.73%	13,039 17,523	17.85% 24.30%
	71,687	96.32%	64,261	89.64%	3,263	4.55%	317	0.44%	324	0.45%	28	0.03%	858	1.20%	7,426	10.36%
	67,213	96.07%	57,578	85.66%	2,915	4.34%	305	0.45%	2,395	3.56%	46	0.07%	1,332	1.98%	9,635	14.34%
	69,344 71,975	95.98% 95.57%	49,986 59,432	72.08% 82.57%	8,216 5,289	11.85% 7.35%	397 325	0.57% 0.45%	5,619 2,256	8.10% 3.13%	37 33	0.05% 0.05%	2,299 1,450	3.32% 2.01%	19,358 12,543	27.92% 17.43%
	70,814	95.57% 95.04%	40,912	82.57% 57.77%	18,225	25.74%	737	0.45%	2,256	3.13%	53 69	0.05%	4,890	6.91%	29,902	42.23%
	67,461	91.84%	41,305	61.23%	6,507	9.65%	1,090	1.62%	2,088	3.10%	46	0.07%	10,920	16.19%	26,156	38.77%
	73,379	94.58%	59,418 59,909	80.97%	4,236	5.77%	555 218	0.76%	1,464	2.00%	60 28	0.08%	3,668 1,246	5.00%	13,961	19.03%
	66,158 70,221	96.27% 92.49%	59,909 52,261	90.55% 74.42%	829 1,891	1.25% 2.69%	655	0.33%	1,458 3,707	2.20% 5.28%	28 68	0.04%	6,368	1.88% 9.07%	6,249 17,960	9.45% 25.58%
	70,829	95.20%	47,928	67.67%	16,577	23.40%	797	1.13%	417	0.59%	38	0.05%	1,672	2.36%	22,901	32.33%
	71,051 71,969	95.71%	64,686 64,816	91.04% 90.06%	1,021	1.44%	320 457	0.45%	1,009	1.42%	25	0.04%	939	1.32%	6,365	8.96% 9.94%
	71,969 68,467	95.76% 95.75%	64,816 62,090	90.06% 90.69%	1,521 1,094	2.11% 1.60%	457 303	0.63%	673 641	0.94% 0.94%	29 23	0.04% 0.03%	1,419 1,408	1.97% 2.06%	7,153 6,377	9.94% 9.31%
	70,036	95.92%	65,338	93.29%	366	0.52%	303	0.43%	285	0.41%	38	0.05%	847	1.21%	4,698	6.71%
	73,959	95.61%	62,656	84.72%	3,903	5.28%	1,804	2.44%	1,103	1.49%	48	0.06%	1,201	1.62%	11,303	15.28%
	72,182 69,020	96.49% 94.65%	64,253 37,664	89.02% 54.57%	3,104 22,739	4.30% 32.95%	250 573	0.35% 0.83%	960	1.20% 1.39%	23 51	0.03%	1,148 3,339	1.59% 4.84%	7,929 31,356	10.98% 45.43%
	71,873	94.65% 95.72%	65,650	91.34%	776	32.95%	321	0.83%	1,360	1.39%	56	0.07%	633	4.84%	6,223	45.43% 8.66%
	72,724	95.26%	66,283	91.14%	1,207	1.66%	343	0.47%	438	0.60%	13	0.02%	990	1.36%	6,441	8.86%
	73,355	95.78%	66,995	91.33%	1,774	2.42%	315	0.43%	382	0.52%	9	0.01%	787	1.07%	6,360	8.67%
	72,801 72,792	96.84% 96.43%	68,968 68,717	94.73% 94.40%	274 278	0.38%	273 442	0.37% 0.61%	229 294	0.31% 0.40%	23 13	0.03%	736 451	1.01% 0.62%	3,833 4,075	5.27% 5.60%
·····	72,641	96.03%	67,458	92.86%	889	1.22%	518	0.71%	395	0.40%	22	0.02% 0.03%	474	0.65%	5,183	7.14%
	72,534	95.59%	66,119	91.16%	1,258	1.73%	504	0.69%	361	0.50%	45	0.06%	1,048	1.44%	6,415	8.84%
	72,924 76.458	94.80% 96.01%	65,252 70,511	89.48% 92.22%	963 415	1.32%	919 993	1.26%	319 606	0.44%	24 49	0.03%	1,655	2.27%	7,672	10.52%
	76,458 71,871	96.01% 96.18%	70,511 67,092	92.22% 93.35%	415 262	0.54% 0.36%	993 753	1.30% 1.05%	606 372	0.79% 0.52%	49 56	0.06%	830 592	1.09% 0.82%	5,947 4,779	7.78% 6.65%
	72,736	96.35%	68,674	94.42%	224	0.31%	442	0.61%	275	0.38%	34	0.05%	433	0.60%	4,062	5.58%
	75,466	96.39%	71,064	94.17%	219	0.29%	824	1.09%	294	0.39%	36	0.05%	301	0.40%	4,402	5.83%
	75,875 72,443	94.98% 95.77%	65,122 63,410	85.83% 87.53%	1,117 1,950	1.47% 2.69%	4,896 3,379	6.45% 4.66%	404 284	0.53% 0.39%	77 32	0.10%	448 323	0.59% 0.45%	10,753 9,033	14.17% 12.47%
				01.0070	.,	=.0070	2,0.0			3.0070		0.0-170	020	0.1070		

	VAPTOT	PercentTot		•	AVAPNHBL_W	PVAPNHBL_W							VAPNHOT_W		VAPHISP	PVAPHisp	PopNonW	PPopNo
	65,520 69,719	98.35% 96.58%	12,234 47,135	18.67% 67.61%	25,234 7,813	38.51% 11.21%	389 324	0.59%	322 872	0.49%	30 40	0.05%	355 267	0.54%	25,875 10,881	39.49% 15.61%	53,286 22,584	81.33 32.39
	66,030	97.03%	34,560	52.34%	21,875	33.13%	291	0.44%	1,878	2.84%	19	0.03%	406	0.61%	5,043	7.64%	31,470	47.66
	64,833 71,629	98.14% 98.69%	25,035 27,295	38.61% 38.11%	36,440 40,086	56.21% 55.96%	324 436 348	0.50% 0.61%	363 1,196	0.56% 1.67%	20 37	0.03% 0.05%	407 423 398	0.63% 0.59%	1,041 1,219	1.61% 1.70%	39,798 44,334	61.39 61.89
	73,324	98.20%	28,261	38.54%	40,632	55.41%		0.47%	1,031	1.41%	26	0.04%		0.54%	1,311	1.79%	45,063	61.46
	75,856 76,299	97.91% 97.39%	36,167 33,953	47.68% 44.50%	33,993 33,797	44.81% 44.30%	419 537	0.55%	1,353 3,562	1.78% 4.67%	44 30	0.06% 0.04%	388 435	0.51%	1,908 1,994	2.52% 2.61%	39,689 42,346	52.32 55.50
	66,200	97.77%	18,559	28.03%	34,520	52.15%	346	0.52%	9,867	14.90%	31	0.05%	421	0.64%	977	1.48%	47,641	71.97
	74,475	98.34% 98.08%	39,703 36,183	53.31%	29,238 30,535	39.26%	376 335	0.50%	1,784 697	2.40%	34 16	0.05%	351 287	0.47% 0.41%	1,752 1,288	2.35%	34,772 34,517	46.69
	70,700 68,955	96.94%	35,190	51.18% 51.03%	28,539	43.19% 41.39%	382	0.55%	920	0.99% 1.33%	33	0.02% 0.05%	343	0.50%	1,435	1.82% 2.08%	33,765	48.82 48.97
	69,812	97.70%	36,321	52.03%	27,059	38.76%	367	0.53%	2,806	4.02%	25	0.04%	305	0.44%	1,320	1.89%	33,491	47.9
	69,140 69.652	97.44% 96.88%	29,851 57,221	43.17% 82.15%	28,705 5,111	41.52% 7.34%	395 217	0.57%	6,522	9.43% 1.94%	37 33	0.05%	382 278	0.55%	1,478 3.271	2.14% 4.70%	39,289 12,431	56.8 17.8
	72,066	98.23%	27,405	38.03%	39,967	55.46%	444	0.62%	800	1.11%	24	0.03%	391	0.54%	1,759	2.44%	44,661	61.9
	71,354	97.74% 98.23%	34,891	48.90% 37.44%	30,656 39,981	42.96% 52.81%	437 395	0.61% 0.52%	1,430 3,242	2.00% 4.28%	17 41	0.02%	431 556	0.60% 0.73%	1,882 1,817	2.64%	36,463	51.1 62.5
~~~~	75,714 72,930	98.23% 98.17%	28,345 44,772	61.39%	18,572	25.47%	223	0.52%	5,925	4.28% 8.12%	23	0.05%	380	0.73%	1,817	2.40% 2.34%	47,369 28,158	38.6
	74,684	97.62%	57,364	76.81%	7,715	10.33%	138	0.18%	5,602	7.50%	33	0.04%	367	0.49%	1,684	2.25%	17,320	23.1
	71,599 75,487	97.89% 97.51%	42,928 65,400	59.96% 86.64%	5,762 1,731	8.05% 2.29%	177 100	0.25% 0.13%	18,675 4,054	26.08% 5.37%	25	0.03% 0.01%	323 239	0.45% 0.32%	2,198 2,072	3.07% 2.74%	28,671 10,087	40.0 13.3
	76,266	96.39%	54,644	71.65%	3,724	4.88%	130	0.17%	11,304	14.82%	83	0.11%	472	0.62%	3,158	4.14%	21,622	28.3
	69,996	97.31%	44,470	63.53%	7,012	10.02%	201	0.29%	13,792	19.70%	19	0.03%	319	0.46%	2,302	3.29%	25,526	36.4
	73,216 70,678	96.69% 96.74%	48,850 38,243	66.72% 54.11%	14,611 25,732	19.96% 36.41%	408 510	0.56%	3,704 908	5.06% 1.28%	30 37	0.04%	391 398	0.53%	2,799 2,549	3.82% 3.61%	24,366 32,435	33.2 45.8
	73,737	96.70%	63,626	86.29%	2,234	3.03%	320	0.43%	919	1.25%	30	0.04%	239	0.32%	3,939	5.34%	10,111	13.7
	71,385	96.14%	55,282	77.44%	6,631	9.29%	298	0.42%	2,342	3.28%	24	0.03%	228	0.32%	3,827	5.36%	16,103	22.5
	72,381 73,606	96.17% 96.43%	55,049 65,952	76.05% 89.60%	8,728 1,751	12.06% 2.38%	337 215	0.47%	1,036 502	1.43% 0.68%	26 22	0.04%	368 171	0.51% 0.23%	4,065 2,365	5.62% 3.21%	17,332 7,654	23.9 10.4
	73,558	96.38%	54,841	74.55%	11,766	16.00%	362	0.49%	977	1.33%	27	0.04%	317	0.43%	2,605	3.54%	18,717	25.4
	73,449 74,822	95.85% 96.44%	41,958 52,861	57.13% 70.65%	19,825 5,974	26.99% 7.98%	445 215	0.61%	2,950 8,789	4.02% 11.75%	87 58	0.12%	572 350	0.78% 0.47%	4,564 3,915	6.21% 5.23%	31,491 21,961	42.8 29.3
	73,142	96.65%	62,364	85.26%	2,138	2.92%	279	0.38%	367	0.50%	5	0.01%	218	0.30%	5,321	7.27%	10,778	14.7
	71,335	96.87%	64,724	90.73%	1,216	1.70%	248	0.35%	375	0.53%	21	0.03%	176	0.25%	2,344	3.29%	6,611	9.2
	68,621 71,787	96.53% 95.95%	59,462 58,222	86.65% 81.10%	1,945 4,551	2.83% 6.34%	326 517	0.48% 0.72%	522 1,479	0.76% 2.06%	17 84	0.02% 0.12%	239 310	0.35% 0.43%	3,732 3,715	5.44% 5.18%	9,159 13,565	13.3 18.9
	73,770	97.17%	53,201	72.12%	12,667	17.17%	360	0.49%	1,272	1.72%	28	0.04%	328	0.44%	3,824	5.18%	20,569	27.8
	69,482 69,763	96.21% 96.77%	58,772 56,331	84.59% 80.75%	1,226 4,802	1.76% 6.88%	553 218	0.80%	332 3,157	0.48%	30 24	0.04%	235 290	0.34%	5,699 2,691	8.20% 3.86%	10,710 13,432	15. 19.
	72,876	96.10%	47,033	64.54%	14,613	20.05%	473	0.65%	1,911	2.62%	41	0.06%	573	0.79%	5,390	7.40%	25,843	35.4
	70,454	96.14%	62,218	88.31%	2,266	3.22%	307	0.44%	799	1.13%	20	0.03%	229	0.33%	1,892	2.69%	8,236	11.0
	70,016 68,782	96.91% 96.17%	63,251 49,162	90.34% 71.48%	473 10,030	0.68% 14.58%	354 430	0.51% 0.63%	367 2,370	0.52% 3.45%	14 24	0.02% 0.03%	190 331	0.27% 0.48%	3,207 3,804	4.58% 5.53%	6,765 19,620	9.6 28.5
	71,054	96.98%	65,367	92.00%	850	1.20%	308	0.43%	404	0.57%	18	0.03%	204	0.29%	1,759	2.48%	5,687	8.0
	71,551	96.43%	56,102	78.41%	8,840	12.35%	360	0.50%	917	1.28%	20	0.03%	225	0.31%	2,534	3.54%	15,449	21.5
•••••	73,378 74,656	96.43% 96.69%	62,228 62,938	84.80% 84.30%	2,366 1,375	3.22% 1.84%	179 194	0.24%	3,117 5,454	4.25% 7.31%	64 29	0.09% 0.04%	282 286	0.38%	2,520 1,912	3.43% 2.56%	11,150 11,718	15.2 15.7
	74,267	97.02%	61,476	82.78%	4,399	5.92%	225	0.30%	3,112	4.19%	45	0.06%	290	0.39%	2,508	3.38%	12,791	17.2
	72,160 72,488	96.77% 96.49%	66,588 65,560	92.28% 90.44%	342 947	0.47%	225 216	0.31%	573 1,007	0.79%	72	0.10%	195 228	0.27%	1,836 1,960	2.54%	5,572 6,928	7.7 9.5
	72,400	96.67%	63,241	86.85%	1,989	1.31% 2.73%	198	0.30%	1,209	1.39% 1.66%	24 24	0.03%	220	0.31%	3,506	2.70% 4.81%	9,577	9.5
	71,476	97.38%	32,915	46.05%	23,607	33.03%	421	0.59%	1,746	2.44%	38	0.05%	358	0.50%	10,519	14.72%	38,561	53.9
	73,853 71,848	97.18% 97.34%	55,629 54,587	75.32% 75.98%	5,269 2,604	7.13% 3.62%	168 136	0.23% 0.19%	7,108 9,469	9.62% 13.18%	37 25	0.05% 0.03%	361 259	0.49% 0.36%	3,199 2,857	4.33% 3.98%	18,224 17,261	24.6 24.0
	71,737	97.55%	50,886	70.93%	2,545	3.55%	89	0.12%	14,110	19.67%	36	0.05%	209	0.29%	2,107	2.94%	20,851	29.0
	71,864 73,423	97.58% 97.09%	54,770 58,666	76.21% 79.90%	3,591 5,862	5.00% 7.98%	137 155	0.19% 0.21%	9,754 4,505	13.57% 6.14%	23 21	0.03%	219 308	0.30%	1,629 1,771	2.27% 2.41%	17,094 14,757	23.7 20.1
	70,271	97.55%	62,088	88.36%	1,862	2.65%	114	0.21%	2,553	3.63%	21	0.03%	156	0.42%	1,775	2.41%	8,183	11.6
	72,453	97.20%	60,379	83.34%	5,209	7.19%	145	0.20%	2,554	3.53%	21	0.03%	168	0.23%	1,949	2.69%	12,074	16.
• • • • • •	75,006 74,114	97.10% 96.75%	57,760 59,135	77.01% 79.79%	10,551 9,089	14.07% 12.26%	236 312	0.31% 0.42%	2,082	2.78% 1.54%	21 40	0.03%	292 238	0.39%	1,890 1,745	2.52% 2.35%	17,246 14,979	22.9 20.2
	72,589	96.80%	65,523	90.27%	2,145	2.95%	251	0.35%	594	0.82%	8	0.01%	201	0.28%	1,543	2.13%	7,066	9.7
	71,638 73,184	96.63% 96.94%	63,262 65,425	88.31% 89.40%	2,601 1,780	3.63% 2.43%	305 208	0.43%	478 274	0.67%	14 43	0.02%	197 194	0.27%	2,364 3,018	3.30%	8,376 7,759	11.0 10.0
	73,164	96.85%	64,551	89.95%	828	1.15%	161	0.28%	1,181	1.65%	17	0.08%	194	0.27%	2,576	4.12% 3.59%	7,216	10.0
	73,721	96.05%	65,531	88.89%	2,456	3.33%	328	0.44%	314	0.43%	12	0.02%	179	0.24%	1,991	2.70%	8,190	11.1
	73,273 71,476	96.38% 96.52%	61,728 51,063	84.24% 71.44%	4,507 14,349	6.15% 20.08%	310 395	0.42% 0.55%	1,337 641	1.82% 0.90%	28 22	0.04%	245 270	0.33% 0.38%	2,466 2,252	3.37% 3.15%	11,545 20,413	15. 28.
	68,117	97.14%	27,175	39.89%	34,581	50.77%	597	0.88%	460	0.68%	37	0.05%	340	0.50%	2,232	4.37%	40,942	60.
	72,963	96.65%	67,428	92.41%	496	0.68%	245	0.34%	321	0.44%	34	0.05%	159	0.22%	1,835	2.51%	5,535	7.5
	72,890 75,397	96.49% 97.24%	63,207 59,242	86.72% 78.57%	3,564 4,957	4.89% 6.57%	223	0.31% 0.31%	981 5,691	1.35% 7.55%	25 55	0.03%	237 276	0.33%	2,097 2,868	2.88% 3.80%	9,683 16,155	13. 21.
	70,233	95.87%	44,548	63.43%	12,248	17.44%	455	0.65%	3,048	4.34%	44	0.06%	392	0.56%	6,596	9.39%	25,685	36.
	75,207 73,043	96.72%	60,977 58,896	81.08% 80.63%	3,289 5,714	4.37% 7.82%	257 279	0.34%	4,645	6.18% 2.48%	33 22	0.04%	321	0.43%	3,215 3,783	4.27%	14,230 14,147	18. 19.
	72,106	96.85% 96.18%	52,755	73.16%	7,539	10.46%	399	0.55%	1,616	2.46%	52	0.03%	238 395	0.33% 0.55%	6,597	5.18% 9.15%	19,351	26.
	71,687	97.36%	63,328	88.34%	3,232	4.51%	266	0.37%	323	0.45%	20	0.03%	132	0.18%	2,490	3.47%	8,359	11.
	67,213 69,344	97.27% 97.52%	56,902 49,206	84.66% 70.96%	2,819 7,963	4.19% 11.48%	223 207	0.33% 0.30%	2,382 5,578	3.54% 8.04%	43 27	0.06% 0.04%	220 263	0.33%	2,787 4,380	4.15% 6.32%	10,311 20,138	15. 29.
	71,975	97.02%	58,603	81.42%	5,172	7.19%	233	0.32%	2,240	3.11%	25	0.03%	230	0.32%	3,329	4.63%	13,372	18.
	70,814	97.39%	39,478	55.75%	17,701	25.00%	373	0.53%	2,427	3.43%	44 17	0.06%	421 238	0.59%	8,520 18,188	12.03%	31,336	44.
	67,461 73,379	97.12% 96.69%	38,764 57,992	57.46% 79.03%	5,973 4,037	8.85% 5.50%	297 352	0.44% 0.48%	2,040 1,430	3.02% 1.95%	46	0.03%	236	0.35% 0.36%	6,833	26.96% 9.31%	28,697 15,387	42. 20.
	66,158	97.76%	59,106	89.34%	765	1.16%	113	0.17%	1,438	2.17%	23	0.03%	160	0.24%	3,073	4.64%	7,052	10.
	70,221 70,829	97.58% 96.43%	49,639 46,627	70.69% 65.83%	1,682 16,429	2.40% 23.20%	162 632	0.23% 0.89%	3,639 398	5.18% 0.56%	60 34	0.09% 0.05%	214 246	0.30% 0.35%	13,125 3,934	18.69% 5.55%	20,582 24,202	29. 34.
	71,051	97.05%	63,873	89.90%	996	1.40%	265	0.37%	993	1.40%	24	0.03%	190	0.27%	2,613	3.68%	7,178	10.
	71,969	96.90%	63,731	88.55%	1,488	2.07%	366 203	0.51%	660	0.92%	20	0.03%	179	0.25%	3,294 3,080	4.58%	8,238	11.
	68,467 70,036	97.10% 96.81%	61,314 64,647	89.55% 92.31%	1,050 324	1.53% 0.46%	203 256	0.30% 0.37%	622 276	0.91% 0.39%	16 25	0.02% 0.04%	198 160	0.29% 0.23%	3,080 2,113	4.50% 3.02%	7,153 5,389	10. 7.6
	73,959	96.84%	61,324	82.92%	3,829	5.18%	1,596	2.16%	1,097	1.48%	43	0.06%	210	0.28%	3,526	4.77%	12,635	17.
	72,182 69,020	97.81% 97.40%	63,087 35,432	87.40% 51.34%	3,055 22,254	4.23% 32.24%	175 344	0.24% 0.50%	855 925	1.18% 1.34%	19 45	0.03% 0.07%	161 415	0.22%	3,250 7,811	4.50% 11.32%	9,095 33,588	12. 48.
	69,020 71,873	97.40% 96.67%	35,432 65,016	51.34% 90.46%	753	32.24%	344 275	0.38%	925 1,341	1.34%	45 55	0.07%	415 256	0.36%	1,782	11.32% 2.48%	6,857	48. 9.5
	72,724	96.84%	64,897	89.24%	1,145	1.57%	254	0.35%	434	0.60%	7	0.01%	256 167	0.23%	3,521	4.84%	7,827	10.
	73,355 72,801	96.94% 97.68%	66,147 68,267	90.17% 93.77%	1,732 242	2.36% 0.33%	261 213	0.36% 0.29%	377 225	0.51% 0.31%	8 18	0.01% 0.02%	163 137	0.22% 0.19%	2,424 2,010	3.30% 2.76%	7,208 4,534	9.8 6.2
	72,801	96.95%	68,283	93.81%	264	0.36%	393	0.29%	273	0.38%	11	0.02%	156	0.21%	1,195	1.64%	4,509	6.1
	72,641	96.63%	66,897	92.09%	859	1.18%	455	0.63%	384	0.53%	19	0.03%	208	0.29%	1,370	1.89%	5,744	7.9
	72,534 72,924	96.67% 96.50%	64,478 64,047	88.89% 87.83%	1,141 925	1.57% 1.27%	405 762	0.56%	354 299	0.49%	44 20	0.06% 0.03%	208 178	0.29%	3,491 4,142	4.81% 5.68%	8,056 8,877	11. 12.
	76,458	96.99%	69,947	91.48%	925 387	0.51%	900	1.18%	593	0.78%	35	0.05%	237	0.31%	2,057	2.69%	6,511	8.5
	71,871	96.79%	66,611 68,268	92.68%	233 211	0.32%	705 383	0.98%	359	0.50%	46 28	0.06%	206 169	0.29%	1,406	1.96%	5,260	7.3
	72,736 75,466	96.85% 96.75%	68,268 70,743	93.86% 93.74%	211 205	0.29%	383 794	0.53% 1.05%	252 266	0.35%	28 27	0.04%	169 186	0.23% 0.25%	1,135 796	1.56% 1.05%	4,468 4,723	6.1 6.2
	75,875	95.47%	64,729	85.31%	1,102	1.45%	4,818	6.35%	396	0.52%	72	0.09%	240	0.32%	1,081	1.42%	11,146	14.0
			63,027	87.00%	1,919	2.65%	3,324	4.59%	272	0.38%	25	0.03%	152	0.21%	904	1.25%	9,416	13.0
	72,443 73,187	96.11% 96.25%	64,831	88.58%	1,919	2.62%	1,859	2.54%	414	0.57%	25	0.03%	203	0.28%	1,191	1.63%	8,356	11.4

	Performance	e Index				President (20	020 & 2012)							020 & 2018)					Governor (	2018)		Se	cretary of State (20	4)	
DISTRICT 1	Dem 91.57%	Rep 8.43%	Biden (m) Bi 23,311	den (m) % 1 89.11%	2,850	Trump % O 10.89%	bama (m) O 27,487	bama (m) % Romne 95.20% 1,38		% Peters20 0% 22,52		ames20 (m) Jam 2,727	es20 (m) % St 10.80%	abenow18 S 13,482	tabenow18 % Jan 92.29%	nes18 (m) Jame 1,126	es18 (m) % 7.71%	Whitmer (m) WI 13,735	hitmer (m) % So 93.49%	957	huette % C 6.51%	0illard (m) Di 13,384	illard (m) % Johnson 90.27% 1,44	Johnson % 9.73%	Č
2	59.10% 77.83%	40.90%	23,944 25.235	55.97% 78.17%	18,837 7,047	44.03% 21.83%	24,550 24,904	64.67% 13,41 80.26% 6,12	0 35.3	3% 23,70	57.08%	17,830 6,593	42.92% 21.05%	18,528 16,914	60.35% 78.20%	12,171 4,715	39.65% 21.80%	18,918 17,094	61.98% 79.26%	11,607 4,472	38.02% 20.74%	11,924 11,871	53.70% 10,28 68.59% 5,43	46.30%	
4	93.71%	6.29%	30,094	91.76%	2,703	8.24%	34,045	96.50% 1,23	6 3.5	0% 29,36	92.76%	2,291	7.24%	17,598	94.12%	1,099	5.88%	17,819	94.97%	943	5.03%	16,993	91.80% 1,51	8.20%	
5	76.47% 81.16%	23.53% 18.84%	41,720 44,206	78.94% 83.71%	11,128 8,603	21.06% 16.29%	39,364 42,749	78.13% 11,02 83.04% 8,72	8 16.9	6% 42,86	82.24%	11,981 9,255	22.98% 17.76%	27,844 29,923	75.37% 80.06%	9,098 7,454	24.63% 19.94%	28,554 30,563	77.43% 81.95%	8,322 6,732	22.57% 18.05%	22,026 24,267	69.02% 9,88 72.87% 9,03	27.13%	
7	81.05%	18.95% 21.70%	43,316 31.871	82.98% 76.54%	8,885 9,770	17.02% 23.46%	42,488 32.916	83.29% 8,52 83.64% 6.44				9,664 9,390	18.74% 23.17%	30,427 20.984	80.32% 76.77%	7,456	19.68% 23.23%	31,208 21.689	82.43% 79.20%	6,654 5.695	17.57% 20.80%	22,988 16.917	73.06% 8,47		<b></b>
9	94.06%	5.94%	28,993	92.89%	2,218	7.11%	31,533	97.08% 94	7 2.9	2% 28,14	93.01%	2,115	6.99%	16,645	93.92%	1,078	6.08%	16,924	94.92%	906	5.08%	15,863	91.61% 1,45	8.39%	
10 11	63.94% 66.93%	36.06% 33.07%	36,052 32,378	69.04% 66.42%	16,168 16,373	30.96% 33.58%	31,294 32,497	66.34% 15,87 70.54% 13,57	5 29.4	6% 32,01	66.86%	17,693 15,868	34.15% 33.14%	23,425 24,357	61.44% 66.94%	14,699 12,029	38.56% 33.06%	24,285 24,749	64.05% 68.39%	13,632 11,437	35.95% 31.61%	18,007 16,650	52.60% 16,229 60.03% 11,084	39.97%	<
12 13	70.68% 66.58%	29.32%	29,580 27,560	68.37% 64.30%	13,687 15,302	31.63% 35.70%	29,024 29,512	74.72% 9,81 72.32% 11,29	B 25.2	8% 29,43		12,705 14,204	30.15% 34.04%	21,334 19,375	71.30% 65.98%	8,586 9,992	28.70% 34.02%	21,613 19,579	72.55% 66.96%	8,178 9.659	27.45% 33.04%	14,185 14,242	66.15% 7,25 62.08% 8,69	33.85%	
14	73.40%	26.60%	28,337	71.38%	11,360	28.62%	29,258	78.26% 8,12	9 21.7	4% 28.07	2 72.70%	10,540	27.30%	19,078	72.70%	7,165	27.30%	19,337	73.93%	6,820	26.07%	14,904	70.13% 6,34	29.87%	
15 16	61.23% 75.87%	38.77% 24.13%	26,680 36,945	62.37% 75.86%	16,098 11,757	37.63% 24.14%	23,330 36,861	77.44% 10,74	0 22.5	2% 26,40 6% 36,48	76.82%	15,139 11,007	23.18%	20,415 26,690	64.41% 75.60%	11,279 8,614	35.59% 24.40%	20,601 27,430	65.31% 77.67%	10,941 7,884	22.33%	10,676 20,664	46.14% 12,46 69.98% 8,86	30.02%	
17 18	67.88% 78.85%	32.12% 21.15%	28,751 44.649	69.25% 79.35%	12,769 11.622	30.75% 20.65%	31,631 41.350	69.86% 13,64 79.59% 10.60				11,860 11.753	29.36% 21.15%	22,478 36,486	66.79% 80.02%	11,176 9.111	33.21% 19.98%	22,878 37.048	68.31% 81.47%	10,612 8.428	31.69% 18.53%	16,208 25.378	59.22% 11,16 72.10% 9.82	40.78% 27.90%	
19 20	63.47%	36.53%	40,513	68.37% 56.24%	18,743	31.63%	32,309	60.22% 21,34 52.87% 24.27	3 39.7	8% 38,79	65.63%	20,316	34.37%	32,259 27,643	66.16% 58.67%	16,499 19,470	33.84%	32,808 28,163	67.51% 59.97%	15,790	32.49%	17,881	48.12% 19,28	51.88%	
21	51.94%	48.06%	28,019	57.10%	21,053	42.90%	19,736	48.67% 20.81	7 51.3	3% 26,49	54.26%	22,332	45.74%	20,619	54.36%	17,310	45.64%	21,078	55.75%	16,728	44.25%	9,098	34.26% 17,46	65.74%	
22 23	47.84% 60.87%	52.16% 39.13%	28,521 31.278	51.79% 65.55%	26,546 16.437	48.21% 34.45%	24,117 22.854	44.83% 29,68 57.87% 16.63			50.77% 62.62%	26,810 17.639	49.23% 37.38%	26,435 22,769	50.97% 63.18%	25,426 13.272	49.03% 36.82%	26,852 23.047	52.25% 64.37%	24,540 12,759	47.75% 35.63%	12,165 9,974	31.95% 25,914 43.58% 12.91	68.05% 56.42%	
24	58.13%	41.87%	32,934	61.95% 59.83%	20,226	38.05% 40.17%	23,264 25,326	55.25% 18,84	0 44.7	5% 31,69	60.31%	20,861	39.69% 39.68%	24,265	60.38%	15,921	39.62% 36.75%	24,799	62.06% 64.75%	15,160	37.94% 35.25%	11,319	41.77% 15,77	58.23%	
25 26	69.60%	38.46% 30.40%	22,803 28,526	65.80%	15,307 14,825	34.20%	29,405	74.90% 9,85	6 25.1	0% 28,19	66.94%	13,925	33.06%	21,313 21,757	63.25% 70.37%	12,386 9,159	29.63%	22,250	72.49%	11,835 8,444	27.51%	12,375 15,106	67.64% 7,22		
27 28	50.30% 51.54%	49.70% 48.46%	25,840 23.391	47.95% 47.28%	28,055 26.086	52.05% 52.72%	25,150 22,425	54.82% 20,72 58.07% 16.19			48.23%	27,336 24.851	51.77% 51.57%	21,546 18,995	52.15% 53.22%	19,771 16.694	47.85% 46.78%	22,194	54.18% 55.30%	18,771 15.830	45.82% 44.70%	12,504 11.326	43.18% 16,455 47.94% 12.29	56.82% 52.06%	
29 30	51.07%	48.93%	21,364	46.15%	24,933	53.85%	22,583	58.72% 15,87	B 41.3	8% 21,48	47.74%	23,528	52.26%	17,081	52.38% 43.97%	15,527 20,197	47.62%	17,503	54.20%	14,788	45.80% 54.34%	10,990 11.394	48.38% 11,72	51.62%	
30	53.12%	46.88%	25,650	50.10%	25,546	49.90%	21,991	57.82% 16,04	2 42.1	8% 25,20	50.38%	24,825	49.62%	21,722	54.85%	17,879	45.15%	22,227	56.65%	17,007	43.35%	13,333	49.58% 13,55	50.42%	
32 33	76.64%	23.36% 28.49%	35,978 43,239	78.10% 76.27%	10,088 13,455	21.90% 23.73%	29,925 31.485	76.76% 9,06 68.02% 14.80			76.95% 73.26%	10,437 15.064	23.05% 26.74%	27,613 34.102	77.63% 73.78%	7,957 12.119	22.37% 26.22%	28,098 34,532	79.41% 75.16%	7,284 11.411	20.59% 24.84%	15,520 17,526	67.11% 7,60 56.16% 13.68	32.89% 43.84%	
34	43.07%	56.93%	19,804	40.66%	28,897	59.34%	20,362	49.81% 20,51	4 50.1	9% 18,68	39.12%	29,079	60.88%	16,055	44.31%	20,177	55.69%	16,519	45.86%	19,505	54.14%	9,711	38.53% 15,492	61.47%	
35 36	31.91% 36.21%	68.09% 63.79%	12,297 14,148	27.91% 33.93%	31,758 27,549	72.09% 66.07%	14,370 15,159	39.30% 22,19 42.80% 20,26	3 57.2	0% 13,40	32.74%	30,617 27,543	70.82% 67.26%	10,441 11,055	32.79% 36.63%	21,400 19,127	67.21% 63.37%	10,712 11,441	33.93% 38.23%	20,862 18,482	66.07% 61.77%	6,229 6,887	28.75% 15,43 32.94% 14,02	67.06%	
37	39.50%	60.50% 48.00%	17,757	39.22% 54.72%	27,515	60.78% 45.28%	16,906 24.931	43.20% 22,22 52,75% 22.33				27,936	62.82% 48.28%	13,246 21,282	40.07%	19,814 19,376	59.93% 47.66%	13,456 21.675	41.09% 53.73%	19,295	58.91% 46.27%	7,603 12,235	34.92% 14,17 43.25% 16.05	65.08% 56.75%	
38 39	41.34%	58.66%	17,790	39.49%	27,260	60.51%	17,512	46.64% 20,03	6 53.3	6% 16,92	38.25%	27,326	61.75%	14,155	42.36%	19,260	57.64%	14,601	44.02%	18,567	55.98%	8,670	36.97% 14,78	63.03%	
40 41	54.36% 74.56%	45.64% 25.44%	31,460 30,927	59.08% 76.80%	21,786 9,340	40.92% 23.20%	23,076 27,386	51.84% 21,43 74.01% 9,61	9 48.1 9 25.9		55.15% 74.64%	23,713 10,044	44.85% 25.36%	23,872 24,855	56.44% 75.39%	18,422 8,113	43.56% 24.61%	24,209 25,483	57.72% 77.62%	17,734 7,347	42.28% 22.38%	11,708 12,884	40.24% 17,38 64.53% 7,08	59.76% 35.47%	
42	45.49%	54.51% 68.63%	24,261	46.29% 29.85%	28,154	53.71% 70.15%	21,204	47.46% 23,47		4% 22,86 2% 14.69		29,052	55.96% 71.35%	19,164	47.19% 32.58%	21,446 25,479	52.81% 67.42%	19,742	48.97% 34 22%	20,573	51.03% 65.78%	10,475	36.31% 18,37		
44	51.39%	48.61%	19,420	49.83%	19,550	50.17%	20,408	55.95% 16,06	B 44.0	5% 18,81	49.33%	19,325	50.67%	15,566	51.58%	14,613	48.42%	16,103	53.82%	13,819	46.18%	10,147	46.53% 11,66	53.47%	
45 46	35.96% 51.26%	64.04% 48.74%	16,804 20.179	33.33% 49.85%	33,612 20,300	66.67% 50.15%	17,351 19.407	40.25% 25,75 54.83% 15.98				32,459 19.407	65.72% 48.96%	14,099 15,780	37.22% 51.98%	23,779 14.578	62.78% 48.02%	14,416 16.322	38.56% 54.08%	22,966 13.859	61.44% 45.92%	8,926 9,282	31.84% 19,11 43.44% 12.08		
47	61.43% 50.49%	38.57% 49.51%	37,226 31,778	62.99% 52.78%	21,874 28,427	37.01% 47.22%	29,562 24.337	60.08% 19,64 49.67% 24.65	5 39.9	2% 36,23 3% 30.19		22,160	37.95%	30,804 25,172	64.04% 52.81%	17,300 22,493	35.96%	31,159	65.29% 54.33%	16,563 21.657	34.71% 45.67%	17,441 13,329	50.63% 17,00	49.37%	
48 49	43.71%	56.29%	25,250	46.03%	29,607	53.97%	18,742	43.21% 24,62	8 56.7	3% 30,19 9% 24,03	44.26%	30,274	55.74%	19,284	45.64%	22,966	54.36%	19,947	47.50%	22,043	52.50%	8,607	30.41% 19,69	69.59%	
50 51	35.24% 38.88%	64.76% 61.12%	20,106 23.801	35.02% 40.44%	37,311 35.055	64.98% 59.56%	15,918 18,579	37.16% 26,91 39.20% 28.81				37,193 35,279	65.57% 60.74%	15,535 18.619	36.65% 41.03%	26,854 26,762	63.35% 58.97%	16,357 19,270	38.82% 42.85%	25,776 25,705	61.18% 57.15%	7,626 8.184	26.96% 20,65 26.01% 23.28	73.04% 73.99%	
52 53	40.80%	59.20% 30.82%	23,945	42.00%	33,065	58.00% 32.46%	20,021	42.07% 27,56	8 57.9 8 25.9	3% 23,38 2% 26.48		33,000	58.53% 32.17%	19,068	43.16%	25,109	56.84% 30.63%	19,692	45.02%	24,045	54.98% 28.60%	8,360 12,992	26.39% 23,31		
54	46.53%	53.47%	28,327	51.00%	27,220	49.00%	20,640	44.20% 26,05	6 55.8	0% 26,89	48.63%	28,409	51.37%	21,431	48.62%	22,651	51.38%	22,055	50.44%	21,669	49.56%	9,515	30.14% 22.05	69.86%	
55 56	46.88% 52.72%	53.12% 47.28%	28,139 30.841	51.35% 58.16%	26,662 22,191	48.65% 41.84%	21,021 22.636	44.38% 26,34 49.14% 23.42				27,677 23.366	50.83% 44.34%	21,633 23,460	49.68% 55.70%	21,913 18.655	50.32% 44.30%	22,009 23.866	50.83% 57.03%	21,287 17.980	49.17% 42.97%	9,272 10,223	29.55% 22,10 33.52% 20.27	70.45%	
57	47.94%	52.06% 50.74%	21,118 22,496	46.33%	24,464	53.67% 52.89%	18,572	50.37% 18,30 52,19% 19,32				23,434	52.80% 51.59%	16,303 18.091	52.21% 52.25%	14,924 16.535	47.79% 47.75%	16,287 18.347	52.54% 53.40%	14,710 16.011	47.46%	8,435 10,201	36.65% 14,57	63.35% 59.51%	
58 59	37.17%	62.83%	19,597	35.88%	35,014	64.12%	16,558	39.32% 25,55	4 60.6	8% 19,51	36.36%	34,158	63.64%	15,902	40.00%	23,855	60.00%	16,087	40.77%	23,373	59.23%	7,893	28.72% 19,59	71.28%	
60 61	43.41% 51.52%	56.59% 48.48%	22,818 25.249	41.32% 49.80%	32,398 25.454	58.68% 50.20%	19,551 23.742	46.43% 22,56 54.43% 19.88	0 45.5	7% 25.21		31,308 24,391	57.93% 49.17%	18,383 20.636	46.48% 54.44%	21,171 17.273	53.52% 45.56%	18,702 20.679	47.55% 55.06%	20,633 16.879	52.45% 44.94%	9,559 11.684	35.16% 17,62 42.47% 15.82	64.84% 57.53%	
62	49.33% 38.88%	50.67% 61.12%	24,796 18,971	46.51% 34.50%	28,512 36,025	53.49% 65.50%	24,751 19,617	53.81% 21,24 45.14% 23,83				27,081 34,277	52.08% 63.95%	20,836 16,275	52.21% 41.34%	19,074 23,092	47.79% 58.66%	20,829	52.57% 42.47%	18,793	47.43% 57.53%	11,605 9,685	41.33% 16,47 34.71% 18,21	58.67% 65.29%	
64	44.51%	55.49%	18,807	40.22%	27,953	59.78%	19,825	50.20% 19,66	4 49.8	0% 18,63	40.94%	26,891	59.06%	16,708	47.02%	18,826	52.98%	16,564 16,816	48.46%	22,441 17,886	51.54%	10,429	41.07% 14,962	58.93%	
65 66	33.18% 34.56%	66.82% 65.44%	15,212 20,154	27.96% 34.49%	39,195 38,276	72.04% 65.51%	17,556 16,961	41.15% 25,11 37.33% 28,47		5% 15,88 7% 19,60		37,287 38,045	70.13% 65.99%	13,697 15,986	34.97% 36.23%	25,469 28,141	65.03% 63.77%	13,810 16,594	35.72% 37.95%	24,848 27,136	64.28% 62.05%	8,892 7,513	31.47% 19,36 24.42% 23,25	68.53% 75.58%	
67 68	45.15%	54.85% 50.56%	20,550 25,375	39.14% 46.93%	31,956 28,697	60.86% 53.07%	24,486 24,508	53.45% 21,32 53.47% 21,32	3 46.5 6 46.5	5% 21,05 3% 25,52	40.80%	30,540 27,809	59.20% 52.14%	17,986 20,337	45.35% 49.72%	21,678 20,567	54.65% 50.28%	18,812 21,533	47.97% 53.05%	20,403 19,054	52.03% 46.95%	13,539 13,157	46.55% 15,54 45.22% 15,93	53.45% 54.78%	
69	60.64%	39.36%	28,010	56.98%	21,151	43.02%	29,532	64.89% 15,98	2 35.1	1% 28,37	58.54%	20,094	41.46%	22,924	60.60%	14,905	39.40%	23,801	63.26%	13,824	36.74%	17,413	60.38% 11,424	39.62%	
70 71	84.14% 44.72%	15.86% 55.28%	30,857 20,988	80.92% 39.47%	7,277 32,182	19.08% 60.53%	38,309 23,724	87.87% 5,28 51.83% 22,04	7 48.1	7% 21.71	41.51%	6,778 30,594	18.10% 58.49%	23,704 18,113	83.60% 45.13%	4,649 22,025	16.40% 54.87%	24,112 19,107	85.42% 47.84%	4,117 20,835	14.58% 52.16%	20,853 13,649	85.13% 3,64 44.12% 17,29	14.87% 55.88%	
71 72 73	45.58% 54.71%	54.42% 45.29%	24,971 23,375	44.19% 54.82%	31,532 19,261	55.81% 45.18%	22,718 21,890	49.12% 23,53 54.83% 18,03				31,028 19,305	55.58% 45.54%	19,158 21,276	45.87% 57.51%	22,609 15,719	54.13% 42.49%	20,302 22,005	48.92% 60.07%	21,197 14,628	51.08% 39.93%	11,740 11,043	39.78% 17,76 43.04% 14.61	60.22% 56.96%	
74	67.79%	32.21%	31,641	68.79%	14,355	31.21%	26,981	67.78% 12,82	4 32.2	2% 31,14	68.46%	14,352	31.54%	25,316	69.31%	11,209	30.69%	25,874	71.54%	10,293	28.46%	14,850	57.43% 11,00	42.57%	
75 76	59.14% 51.63%	40.86% 48.37%	32,220 27,360	61.25% 51.21%	20,386 26,069	38.75% 48.79%	25,634 24,025	57.36% 19,05 52.34% 21,88		4% 31,36 6% 27,42		21,114 25,367	40.23% 48.05%	25,757 22,661	61.13% 53.47%	16,381 19,722	38.87% 46.53%	26,928 23,395	64.38% 55.72%	14,898 18,595	35.62% 44.28%	14,564 14,172	47.25% 16,259 43.23% 18,600	52.75% 56.77%	
77 78	61.56% 37.48%	38.44% 62.52%	31,378 16,399	62.50% 35.25%	18,829 30,120	37.50% 64.75%	26,515	61.88% 16,33 41.56% 22.17	1 38.1 9 58.4	2% 30,77 4% 15.89	61.88%	18,960 30.011	38.12% 65.37%	25,185 13,742	63.19% 39.41%	14,671 21,126	36.81% 60.59%	26,064 14,453	65.91% 41.90%	13,479 20.043	34.09% 58.10%	14,710 8.020	50.71% 14,29 31.94% 17,09	49.29% 68.06%	
79	31.98%		18,665	35.76%	33,527	64.24%	11,861	29.97% 27.71	2 70.0	3% 17,02	32.64%	35,148	67.36%	13,010	33.09%	26,304	66.91%	13,502	34.65%	25,467	65.35%	5,535	20.74% 21,15	79.26%	
80 81	52.35% 51.42%	47.65% 48.58%	30,879 31,544	59.51% 57.35%	21,007 23,463	40.49% 42.65%	20,482 21,380	46.76% 23,32 46.67% 24,42	8 53.3	3% 29,25	53.23%	23,365 25,710	45.05% 46.77%	22,107 23,731	54.00% 52.84%	18,829 21,177	46.00% 47.16%	22,767 24,622	56.01% 55.30%	17,883 19,902	43.99% 44.70%	9,624 10,482	35.00% 17,87 36.08% 18,57		
82 83	71.95% 51.30%	28.05% 48.70%	32,616 20,789	77.00% 54.98%	9,740 17,023	23.00% 45.02%	25,538 15,301	69.98% 10,95 49.36% 15,69				11,324 17,701	26.86% 47.43%	24,266 14,197	72.51% 52.14%	9,202 13,034	27.49% 47.86%	24,968 14,799	74.80% 54.52%	8,412 12,345	25.20% 45.48%	11,942 6,231	57.26% 8,91 37.16% 10,53	42.74% 62.84%	
84 85	50.73% 26.71%	49.27%	27,128	55.23% 31.95%	21,994 36,257	44.77% 68.05%	18,909 9,840	46.91% 21,39 22.85% 33,22	6 53.0	9% 25,52	52.29%	23,286 38,322	47.71%	19,786	52.41% 27.56%	17,969 29,577	47.59%	20,511 11,790	54.58% 29.11%	17,071 28,716	45.42%	8,704 4,515	36.13% 15,38 15.40% 24,80		
86	43.92%	56.08%	22,946	49.87%	23,066	50.13%	15,693	40.46% 23,09	7 59.5	4% 20,92	45.86%	24,708	54.14%	16,364	44.92%	20,064	55.08%	17,035	47.08%	19,145	52.92%	6,798	28.20% 17,30	71.80%	
87	62.27% 43.37%	37.73% 56.63%	25,281 25,776	60.01% 45.37%	16,848 31,032	39.99% 54.63%	24,965 19,612	68.40% 11,53 43.26% 25,71				16,735 32,366	40.64% 57.42%	19,126 19,795	62.51% 45.03%	11,471 24,161	37.49% 54.97%	19,779 20,438	64.53% 46.76%	10,872 23,274	35.47% 53.24%	12,150 9,963	58.21% 8,72 33.67% 19,62	41.79% 66.33%	
89	33.80%	66.20%	15,469	32.78%	31,720	67.22%	13,118	36.97% 22,36	4 63.0	3% 14,89	31.95%	31,732	68.05%	12,283	35.66%	22,164	64.34%	12,527	36.52%	21,771	63.48%	6,293	27.84% 16,30	72.16%	
90 91	37.80% 36.30%	62.20% 63.70%	22,505 15,129	40.36% 31.71%	33,257 32,580	59.64% 68.29%	16,166 16,450	36.49% 28,13 44.26% 20,71	7 55.7	4% 14,98	32.06%	34,564 31,742	62.38% 67.94%	16,925 12,995	39.84% 38.06%	25,557 21,147	60.16% 61.94%	17,344 13,494	41.14% 39.90%	24,816 20,325	58.86% 60.10%	7,750 7,845	27.21% 20,72 33.69% 15,44		
92 93	48.64% 38.70%	51.36% 61.30%	18,615 17,481	45.98% 35.11%	21,874 32,315	54.02% 64.89%	17,957 18,874	53.33% 15,71 43.23% 24,78		7% 18,46 7% 17,86		21,533 31,356	53.84% 63.71%	15,116 15,170	49.50% 39.95%	15,420 22,800	50.50% 60.05%	15,781 15,580	51.92% 41.39%	14,614 22,062	48.08% 58.61%	9,634 10,788	45.06% 11,74 37.02% 18,35	54.94% 62.98%	
94	68.67%	31.33%	29,198	67.61%	13,986	32.39% 58.33%	31,718	71.14% 12,86	9 28.8	6% 29.05	68.17%	13,564 30,866	31.83%	22,629	67.96%	10,670	32.04%	23,262	70.19%	9,879	29.81%	18,167	66.12% 9,30	33.88%	
95 96 97	41.29%	50.34%	21,922 23,475	41.67% 45.49%	30,683 28,130	54.51%	19,199 24,689	53.75% 21,24	7 46.2	5% 24,26	47.64%	26,661	59.03% 52.36%	17,302 20,141	42.21% 50.85%	23,684 19,466	49.15%	17,576 20,724	43.11% 52.55%	23,193 18,709	56.89% 47.45%	10,427 15,053	35.39% 19,03 48.66% 15,88	51.34%	
97 98	39.20% 33.14%	60.80% 66.86%	17,944 14,154	34.85% 27.70%	33,542 36,946	65.15% 72.30%	20,309 17,613	44.28% 25,56 41.49% 24,83				32,170 34,827	63.15% 69.61%	15,621 12,921	39.92% 35.02%	23,507 23,972	60.08% 64.98%	16,116 12,685	41.45% 34.74%	22,760 23,825	58.55% 65.26%	11,802 8,694	39.00% 18,46 30.81% 19,52	61.00% 69.19%	
99	38.67%	61.33%	15,495	31.82%	33,200	68.18%	21,034	46.97% 23,74	B 53.0	3% 16,94	35.55%	30,725	64.45%	14,989	38.94%	23,507	61.06%	15,177	39.76%	22,990	60.24%	11,733	40.74% 17,06	59.26%	
100 101	36.73% 35.70%	63.27% 64.30%	15,491 15,730	32.29% 32.08%	32,487 33,304	67.71% 67.92%	17,484 17,271	44.34% 21,95 43.62% 22,32	1 56.3	8% 15,36	31.82%	32,032 32,927	67.38% 68.18%	13,475 13,323	38.28% 36.49%	21,725 23,187	61.72% 63.51%	13,513 13,537	38.78% 37.47%	21,332 22,594	61.22% 62.53%	9,246 8,511	36.05% 16,40 34.08% 16,46		
102 103	43.28% 48.97%	56.72% 51.03%	20,948 32,760	40.65% 52.37%	30,587 29,798	59.35% 47.63%	21,069 23,422	49.27% 21,69 45.74% 27,78	4 50.7 2 54.2			30,475 31,449	59.95% 50.35%	17,557 26,106	44.49% 50.79%	21,905 25,298	55.51% 49.21%	17,960 26,604	45.74% 52.12%	21,305 24,437	54.26% 47.88%	11,280 13,836	39.70% 17,134 39.22% 21,431	60.30% 60.78%	
104	38.67%	61.33%	20,693	37.31%	34,764	62.69%	18,803	42.04% 25,91	9 57.9	6% 20,16	36.55%	35,008	63.45%	17,326	39.69%	26,327	60.31%	17,594	40.64%	25,701	59.36%	10,633	35.69% 19,16	64.31%	
105 106	35.13% 38.14%	64.87% 61.86%	16,602 18,575	31.36% 33.50%	36,331 36,873	68.64% 66.50%	18,558 20,709	42.26% 25,35 44.31% 26,02				35,785 35,672	68.10% 64.87%	14,530 16,905	35.98% 39.15%	25,853 26,271	64.02% 60.85%	14,580 17,024	36.40% 39.94%	25,474 25,597	63.60% 60.06%	9,834 12,109	34.11% 18,99 38.61% 19,25	65.89% 61.39%	
107 108	42.08% 39.69%	57.92% 60.31%	23,563 16,732	42.16% 34.82%	32,332 31,318	57.84% 65.18%	20,340 19,108	43.54% 26,37 45.88% 22,53	3 56.4	6% 22,92	41.13%	32,807 30,274	58.87% 63.93%	19,371 15,111	43.31% 41.50%	25,357 21,301	56.69% 58.50%	19,869 15,159	44.85% 41.79%	24,432 21,119	55.15% 58.21%	11,620 10,938	36.00% 20,65 39.88% 16,48		
109	52.75%	47.25%	25,141	50.89%	24,258	49.11%	23,208	54.20% 19,61	3 45.8	0% 25,23	51.29%	23,963	48.71%	21,285	54.16%	18,016	45.84%	21,528	55.12%	17,530	44.88%	14,449	51.10% 13,820	48.90%	
110	42.49%	57.51%	19,477	39.64%	29,659	60.36%	19,406	45.29% 23,44	0 54.7	1% 19,94	40.87%	28,859	59.13%	17,020	44.35%	21,355	55.65%	16,987	44.70%	21,015	55.30%	11,243	40.47% 16,53	59.53%	

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## SUMMARY CALENDAR FOR CANDIDATE AND PROPOSAL DEADLINES

## August 2, 2022 Primary and November 8, 2022 General Election

## **Important Dates and Filing Deadlines**

Refer to Michigan compiled law for cited provisions (<u>Legislature.Mi.Gov</u>.) Dates are subject to change through legislative action. If any errors are found, it is the law, itself, which must be followed.

## **Election Dates**

August 2, 2022State PrimaryNovember 8, 2022State General Election

## **Registration Deadlines**

July 18, 2022	Last day to register in any manner other than in-person with the local clerk for the August primary. (168.497)
July 19 through 8:00 p.m. August 2, 2022	In-person registration with local clerk with proof of residency. (168.497)
October 24, 2022	Last day to register in any manner other than in-person with the local clerk for the November general election. (168.497)
October 25 through 8:00 p.m. November 8, 2022	In-person registration with local clerk with proof of residency. (168.497)

## **Filing Deadlines: Candidates**

By 5:00 p.m., March 21, 2022	Incumbent Appeals Court, Circuit Court, District Court and Probate Court judges file Affidavit of Candidacy and Affidavit of Identity for the August primary. Withdrawal deadline elapses at 5:00 p.m. on March 24. (168.409b, 409c, 413a, 414, 433a, 434, 467c and 467d)
By 4:00 p.m., April 19, 2022	Candidates seeking Appeals Court, Circuit Court, District Court or Probate Court judgeships file nonpartisan nominating petitions, Affidavit of Identity and Affidavit of Constitutional Qualification for the August primary. Withdrawal deadline elapses at 5:00 p.m. on April 22. (168.409b, 409c, 413, 414, 433, 434, 467b and 467d)
By 4:00 p.m., April 19, 2022	Candidates seeking a Wayne County Community College Trustee position file an Affidavit of Identity and a nonpartisan nominating petition. Withdrawal deadline elapses at 4:00 p.m. on April 22. (389.83, 168.303)

By 4:00 p.m., April 19, 2022	Candidates for partisan and nonpartisan offices (other than judicial candidates) file nominating petitions (or fees if applicable) and Affidavit of Identity for the August primary. Withdrawal deadline elapses at 4:00 p.m. on April 22. (168.133 and 163 for federal and state-level offices; assorted other statutes for local offices)
By 4:00 p.m., May 3, 2022	Candidates for county convention delegate (precinct delegate) file an Affidavit of Identity for the August primary. Filing submitted to the clerk of the county in which candidate resides. Withdrawal deadline elapses at 4:00 p.m. on May 6. (168.624, 624a)
By 5:00 p.m., July 5, 2022	Incumbent Supreme Court Justices file Affidavit of Identity and Affidavit of Candidacy forms for the November general election. (168.392a and 558)
By 4:00 p.m., July 21, 2022	District Library Board candidates for districts that do not include a school district file an Affidavit of Identity and a nonpartisan nominating petition. (A \$100.00 nonrefundable fee may be filed in lieu of a petition.) (Special note: If district library includes a school district, District Library Board candidates file by 4:00 p.m. on August 16, 2022) (397.181)
By 4:00 p.m., July 21, 2022	Candidates without political party affiliation seeking partisan offices file qualifying petitions and Affidavit of Identity for the November general election. Withdrawal deadline elapses at 4:00 p.m. on July 25. (168.590c)
By 4:00 p.m., July 22, 2022	Write-in candidates other than write-in candidates who seek precinct delegate positions file Declaration of Intent forms for the August primary. (168.737a)
By 4:00 p.m., July 26, 2022	Candidates for Local School Board and Community College Trustee file an Affidavit of Identity and a nonpartisan nominating petition. (A \$100.00 nonrefundable fee may be filed in lieu of a petition.) Withdrawal deadline elapses at 4:00 p.m. on July 29. (168.303; 389.152)
By 4:00 p.m., July 26, 2022	Candidates for village offices file an Affidavit of Identity and a nonpartisan nominating petition. Withdrawal deadline elapses at 4:00 p.m. on July 29. (168.381)
By 4:00 p.m., July 29, 2022	Write-in candidates who seek precinct delegate positions file Declaration of Intent forms with the county clerk for the August primary. (As an alternative, candidates for precinct delegate may file the Declaration of Intent form with appropriate precinct board on election day before the close of the polls.) (168.737a)
August 2, 2022	STATE PRIMARY ELECTION

By 4:00 p.m., August 16, 2022	District Library Board candidates for districts that include a school district file an Affidavit of Identity and a nominating petition. (A \$100.00 nonrefundable fee may be filed in lieu of a petition.) (Special note: If district library does not include a school district, District Library Board candidates file by 4:00 p.m. on July 21, 2022). (397.181)
By 4:00 p.m., Oct. 28, 2022	Write-in candidates file Declaration of Intent forms for the November general election. (168.737a)
November 8, 2022	STATE GENERAL ELECTION

## **Filing Deadlines: New Parties and State Ballot Proposals**

By 5:00 p.m.,	Petitions to place a legislative initiative proposal on the November general election							
June 1, 2022	ballot filed with the Secretary of State (340,047 valid signatures required). (168.471)							
By 5:00 p.m.,	Petitions to place a proposed constitutional amendment on the November general							
July 11, 2022	election ballot filed with the Secretary of State (425,059 valid signatures required). (168.471)							
By 4:00 p.m.,	New political parties file petitions to qualify for November general election ballot							
July 21, 2022	(42,506 valid signatures required). (168.685)							

## **Filing Deadlines: County and Local Proposals**

By 5:00 p.m., April 26, 2022	Petitions to place county and local questions on the August primary ballot filed with county and local clerks. (168.646a)					
By 4:00 p.m.,						
May 10, 2022	Ballot wording of county and local proposals to be presented at the August primary certified to county and local clerks; local clerks receiving ballot wording forward to county clerk within two days. (168.646a)					
By 5:00 p.m., August 2, 2022	Petitions to place county and local questions on the November general election ballot filed with county and local clerks. (168.646a)					
By 4:00 p.m., August 16, 2022	Ballot wording of county and local proposals to be presented at the November general election certified to county and local clerks; local clerks receiving ballot wording forward to county clerk within two days. (168.646a)					