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“My good friends on the other side of the aisle aren’t bothered by those facts”: U.S. state legislators’ use of evidence in making policy on abortion

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Abstract

Objective: In recent years, U.S. states have passed many restrictive abortion policies with a rationale of protecting health and safety, in apparent contravention of abundant scientific evidence on abortion safety. This study explored whether and how state legislators use scientific evidence when deciding abortion policy.

Study Design: We conducted 29 semi-structured interviews with state legislators and their aides in Maryland, North Carolina, and Virginia in March through July 2017. We recruited via e-mail to members of all health-related committees of the General Assembly in each state, plus sponsors and co-sponsors of 2017 abortion bills, with follow-up via phone and in person. We conducted iterative thematic analysis of all interview transcripts.

Results: We found no cases of lawmakers’ decisions on abortion being shifted by evidence. However, some lawmakers used evidence in simplified form to support their claims on abortion. Lawmakers gave credence to evidence they received from trusted sources, and that which supported their pre-existing policy preferences. Personal stories appeared more convincing than evidence, with participants drawing broad conclusions from anecdotes. Democrats and Republicans had different views on bias in evidence.

Conclusions: In this sample, evidence did not drive state legislators’ policymaking on abortion. However, evidence did help inform high-level understanding of abortion, if such evidence supported legislators’ pre-existing policy preferences. This work may help public health

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practitioners and researchers develop more realistic expectations for how research interacts with policymaking.

Keywords

abortion; policy; U.S. state policy; lawmakers; evidence use in policymaking

1. INTRODUCTION

Increasingly, the field of public health emphasizes the importance of basing health policies on the best available evidence.¹[1-2] Researchers and public health practitioners alike call on political decision-making to be informed by solid science.[3-4]

A large body of literature explores how scientific evidence has been used in policymaking in the U.S.[1, 5-8] This literature consistently finds that evidence is, at best, just one of many factors that influence policy. Personal values, political considerations, stories, and other factors come into play as policymakers make decisions.[1] Studies have found that evidence can sometimes play a key role in policy outcomes, if it is presented in a timely, easy-to-use format, and if other barriers to use are addressed.[9-10] However, policymakers often appear to use evidence symbolically to confer legitimacy or provide substantiation for predetermined policy preferences, rather than instrumentally, that is, to understand particular problems and make decisions in order to improve policy outcomes.

The few prior studies on the use of evidence in reproductive health policymaking have identified the importance of expert witnesses in judicial decisions on abortion and explored scientific efforts to link abortion to infertility, breast cancer, and post-traumatic stress (all since debunked).[12] To our knowledge, no study has examined state legislators' use of scientific evidence in making abortion policy. This is important because in recent years, many U.S. states have passed large numbers of restrictive abortion policies.[13] Many of these have been passed with the rationale that such measures are needed to protect patients' health and safety.[14-15] However, evidence does not support these claims; the scientific consensus is clear that legal abortion in the U.S. is safe and effective.[16] In fact, by limiting access and pushing abortions later in pregnancy, restrictive abortion laws may themselves increase medical risks[16] as well as logistical barriers and financial burdens for people seeking abortion.[17-18]

The relationship between state abortion laws and scientific evidence was a focus of the U.S. Supreme Court's 2016 ruling in *Whole Woman's Health v. Hellerstedt*, which struck down a set of Texas abortion regulations based in claims of protecting patients' health. Justice Breyer wrote, "We have found nothing in Texas' record evidence that shows that... the new law advanced Texas' legitimate interest in protecting women's health." In this case, the Supreme Court set an important precedent: the ruling explicitly requires courts to weigh the benefits and burdens of any contested abortion policy, and to use evidence to do so.[19]

¹We use the definition of "evidence" articulated by the National Research Council's Committee on the Use of Social Science Knowledge in Public Policy: "knowledge based in science... broadly taken to mean data, information, concepts, research findings, and theories that are generally accepted by the relevant scientific discipline." [1]

Since 2017, several states have passed abortion bans at very early gestational stages (e.g., 6 or 8 weeks) in an apparent effort to challenge and ultimately overturn *Roe v. Wade*.^[20] In the meantime, however, it is targeted abortion restrictions passed in the name of health and safety that continue to threaten the availability of abortion care. Health and safety claims have driven both the Louisiana admitting privileges law (virtually identical to the one banned in *Whole Woman's Health v. Hellerstedt*) which will be ruled on in 2020 by the Supreme Court,^[21] and the Missouri regulatory process that in summer 2019 threatened the license of the state's only remaining abortion clinic.^[22]

In short, there is no evidence-based reason for heightened concern about the health effects of abortion. Yet state policies that regulate abortion in the name of patient safety continue to threaten access to care. This raises questions of whether and how state lawmakers use evidence when making policy decisions on abortion. This study aims to address that question, exploring how lawmakers assess the credibility of evidence, and how they balance evidence with other factors such as personal stories, values, and political pressures, through a qualitative study of state legislators in three U.S. states.

2. METHODS

We conducted in-depth semi-structured interviews with state legislators and their aides in Maryland, North Carolina, and Virginia. We chose these three states because they neighbor each other and share some socio-cultural similarities, yet have a range of different policies on regulation of abortion (see Table 1).

2.1 Sample and recruitment:

After the UC Berkeley Committee for the Protection of Human Subjects approved this research protocol, we recruited our sample by targeting members of the primary health-related committees of the General Assembly in all three states, as well as sponsors and co-sponsors of 2017 bills addressing abortion, and members of committees that considered abortion bills in 2017. We conducted outreach via email to 132 legislators. The outreach email described our research as a study of state legislators' decision-making around maternal and reproductive health policies, including abortion, and requested their participation in a 30-minute interview. We followed up via phone and in person. Because the issue of abortion is often highly polarized along partisan lines, we attempted to balance our sample by political party; when more Democrats than Republicans accepted our initial requests, we increased our outreach attempts with Republican legislators.

2.2 Data collection and analysis:

The first author conducted 29 interviews (26 with legislators, 3 with aides; 23 in person, 6 via phone) in March through July 2017. Interviews ranged in length from 12 to 53 minutes, with a mean of 34 minutes. We interviewed every legislator on our target committees who agreed to participate (after repeated outreach attempts by email, phone, and in person). By the end of data collection, we did also find that data saturation had been reached^[23], i.e., comments in new interviews were increasingly redundant of those expressed in previous interviews. Where themes were strikingly different by political party, we found data

saturation among Democrats and even among the relatively fewer Republicans we interviewed; the themes they articulated tended to echo each other.

We created a scalable interview guide that allowed us to cover one specific bill or a broader set of policy questions, as appropriate for the participant's legislative experience and their time constraints. In general, we asked participants to describe their decision-making on a specific recent abortion bill. We also asked questions regarding policies on substance use in pregnancy; findings on that topic are reported elsewhere.[24] We probed for factors that were particularly influential in the participant's decision-making process, such as research evidence/studies, testimony, personal experiences, constituent concerns, etc. We also explored how participants assessed the credibility of any evidence they use and how they balanced evidence with other factors. The interviewer wrote field notes after each interview to record observations and emerging themes.

We audio-recorded all interviews, had them transcribed by a professional transcriptionist, and uploaded them to Dedoose qualitative data analysis software for coding and analysis. We developed an initial codebook from interview guide domains (e.g., "STUDIES," "STORIES," "TRUST") and field notes (e.g., "BIAS," "THE OTHER SIDE"). We then expanded the codebook via detailed reading of the transcripts, adding inductive codes arising from the data (e.g., "SHAM BILL," "DATA-DRIVEN GUY"). We performed thematic analysis[25] via a two-stage process: first, detailed inductive coding to identify the range of concepts in the data, and then thematic consolidation to synthesize codes into broader themes.[26] The first author conducted all coding, and the two authors consulted together to resolve areas of uncertainty, such as outlier themes, to help ensure dependability of results. [27] Here we report our findings by major themes. Due to the small and publicly identifiable pool from which we sampled, we do not report gender and state with each quote in order to preserve participant anonymity.

3. RESULTS

3.1 Participant characteristics

Table 2 provides an overview of the sample. Approximately 40% of participants were female and 60% were male. Democrats outnumbered Republicans by roughly two to one. In our sample, all Democrats supported abortion rights and all Republicans opposed abortion rights.

3.2 Partisan differences in views on bias in evidence

Many legislators reported not taking evidence at face value. Participants expressed the view that the scientific enterprise is guided by priorities that are inherently biased or politicized. Multiple Republicans, in particular, suggested that researchers' priorities skewed their choice of research questions and interpretation of findings. As a senior aide to a Republican put it:

"He'll look at any [study] that's brought to him. But he realizes that everything out there is written with some, you know – maybe not an agenda, but... everyone has

their own biases and angles they're trying to get at with any research they do, obviously.”

– Aide to Republican

A few Republicans expressed that research is suspect because even in choosing a specific question to be investigated, researchers deliberately ignore other important aspects of an issue.

“Studies can be geared towards what you want it to be. And one of the problems that I have seen ...is higher education institutions and so forth gather the numbers that they want to gather, but they don't look at the whole picture.”

- Republican

Some Democrats also suggested that evidence can be malleable and potentially suspect. However, in contrast to Republicans, they saw this as a problem not of the research process itself but of the way politicians may select and use evidence that suits their ends. “It's all part of the art of politics,” as one Democrat put it.

“Can data be used, twisted, to support any point? Sure, I mean, that's just a fact. Data can support anything. It's how we present the data and how we contextualize it that's important.”

–Democrat

In sum, many participants suggested that evidence is suspect in a policy context because of possible bias, but Republicans tended to see this potential bias as inherent in the *production* of evidence, while Democrats tended to see bias chiefly in the *selection and use* of evidence in policy debate.

3.3 Evidence used to substantiate policy positions

Despite often viewing the production or use of evidence as biased and politicized, most legislators we spoke to did make use of evidence in simplified form to support their policy agenda on abortion. Legislators were not able to name specific research studies or describe methods, but they did refer to the high-level conclusions of published research as they explained their stances on abortion.

“I can't recall the studies that I've seen. But I know that a woman who is younger age or of low income, that is allowed to have an abortion, I think she is much more likely to increase her income over a longer period of time as opposed to, you know, having a baby at an earlier age.”

–Democrat

“Abortions are one of the safest procedures done, and in fact, in the first trimester it's safer than pregnancy. Well, that sounds a little weird when it comes out of my mouth, but – I do know it's a safe procedure.”

–Democrat

In our interviews, participants never went into more detail than this when discussing specific research evidence.

Using evidence in this broad-strokes way to support their policy decisions on abortion was more common among Democrats, but some Republicans also called on evidence to support their policy initiatives.

“There’s lots of studies that have been done that point to unborn babies, at least by 20 weeks – and significant evidence even before then – that they are capable of feeling pain. Obviously, that’s the scientific basis for this legislation.”

– Aide to Republican

3.4 Trusted sources influence trust in evidence

When we explored how legislators and their aides appraise the quality of the research evidence they use, none referenced any assessment of study design or methodology. They did sometimes mention research published in a “prominent journal,” or referred to a given research institution as being “highly respected.” More often, they decided that a given piece of evidence was trustworthy because they got that evidence from a person or organization they trust. And politics was a primary lens through which they determined whom to trust.

“Rightly or wrongly, I do trust the information I get from NARAL or Planned Parenthood. That’s just sort of where my politics lead me... So why wouldn’t I use them as a resource?”

–Democrat

“I’ve got a few people I can call and say, hey, is this a real problem out here? You know, I do that quite a bit. ...If I’m not sure about some [evidence], the Family Foundation, or some doctors I know – I call them, they give me a reality check on it.”

–Republican

3.5 Drawing broad conclusions from specific anecdotes

When asked about influential evidence that shaped their policy decision-making, legislators often cited anecdotes and personal stories, rather than scientific evidence. Legislators did not report hearing anecdotes about abortion directly from their constituents, rather largely from social media and news media. Several legislators acknowledged that the story they related was “only anecdotal” or “just one data point,” but nevertheless appeared to draw broader conclusions based on that anecdote. Individual stories seemed to constitute an alternate form of “evidence” that legislators accepted as representing a wider trend. For example, in discussing his support of a ban on abortion after 20 weeks’ gestation, one Republican shared a story that supported his conviction that abortion is not a necessary option, even to respond to fetal anomalies discovered in mid-pregnancy:

“A lot of times what we’ve found is there is a huge amount of misdiagnosis of these fetal abnormalities. ...Now, I haven’t seen any real research on that. But, we had one lady who lives nearby here, she just posted on her Facebook about her son, who’s one of those situations: She was recommended to terminate the pregnancy. He was born. He now is perfectly fine. So, she had posted that on her Facebook. And within a couple hours, she had ten other people saying, ‘Hey, same thing

happened to me. They told me to terminate [because the] baby had problems. Born perfectly fine.' ...So, it is very widespread. Like I said, I haven't altogether seen the actual studies on it, but, you know, it's very widespread."

- Republican

Not only do such anecdotes serve as an acceptable form of evidence, many legislators seemed to find them more convincing than evidence from science.

"I've got some friends that are doctors and they, you know, tell you anecdotes about what's going on. That's where you get – you know, you get some real evidence, to back up the statistics."[Emphasis theirs]

–Democrat

3.6 Seeing the other side's views on abortion as shaped by ideology, not evidence

Both Republicans and Democrats described cases where their political opponents claimed to make policy decisions based on evidence, which the participants felt were really rooted in ideology. This was particularly expressed by those in the minority party in each state, who were frustrated by the majority party's abortion policies that they saw as furthering ideological party-line goals while ignoring "common-sense facts." Republicans in Maryland (where Democrats held a majority of seats in the General Assembly in 2017) felt that Democrats put their fervor for abortion rights above even the most basic health or safety considerations. As one Republican put it:

"The protection of abortion in this state is just about close to the unhinged level of support... We actually had a woman die from complications due to a late-term abortion, because the quality of care simply is non-existent. I mean, truthfully, a dentist is more regulated than an abortion. ...But my good friends on the other side of the aisle aren't bothered by those facts. They're pretty committed to [abortion], and so they make absolutely certain that there is no change."

–Republican

For their part, Democrats in Virginia and North Carolina (where Republicans constituted the majority of the General Assemblies in 2017) felt that abortion regulations passed in the name of protecting women's health were "sham bills" that were part of, as one Democrat put it, "a clear agenda to curtail a woman's rights."

"My belief is that most of those claims [about protecting women] are obfuscations to try and give some scientific and health-related legitimacy to something that is truly an ideological perspective... To me, I haven't seen a claim on the restriction bills around safety that I thought had significant research-based backing to make me believe that it was worth supporting."

–Democrat

A (male) representative forcefully argued that abortion restrictions passed in the name of health are actually part of a broader misogynistic agenda by Republicans:

"They claim they want to protect women's health? That's just pure crap. They may as well have said, you can only have an abortion every 5th Sunday in March, and

only if there's a full moon... Those laws, waiting periods, ultrasound, they're all designed to do everything they can to discourage women from having an abortion. Let me tell you something, if men could have kids, there would be more abortion clinics than Starbucks. And everybody knows it."

– Democrat

3.7 Beliefs drive evidence claims, not the reverse

Despite participants suggesting that their own policies on abortion were evidence-based while the other side was ideologically driven, participants' comments sometimes revealed that their own claims and priorities were dictated by previously held policy preferences, rather than by evidence. For instance, one Democrat said:

"No, I don't have any concern about the safety of abortion. I think the way it is, it's pretty safe. In fact, I know it is. And, you know, one of your questions was: do I have any statistics or any numbers? No, I don't. It's just how I feel."

–Democrat

An aide for a Republican reported,

"He has read the academic studies that [show] negative long-term effects and short-term effects of abortion on women... Obviously he appreciates [and] uses all that. But really, this is something he believes personally, from his own life experiences and learning. He's been pro-life for a long time... You know, it's something he does because he thinks it's the right thing to do."

– Aide to Republican

4. DISCUSSION

In this study exploring how state lawmakers use evidence in their legislative decision-making on abortion, we did not find any instance of a legislator who had formed or changed their opinion about an abortion policy because of any particular research evidence. However, lawmakers did refer to selected research findings in apparent attempts to provide legitimacy to their claims about abortion. Participants criticized their political opponents' positions as being predetermined along party lines rather than being informed by evidence. Yet in their own discussion of the issue, members of both parties also revealed their own priorities to be dictated more by political values than evidence.

It is important to note that not all evidence our participants used to substantiate their positions on abortion was of equal quality. Of the examples in section 3.3 above, the two quotes from Democrats, on abortion safety and the impact of abortion denial, are supported by peer-reviewed research, including the National Academies of Science, Medicine & Engineering's comprehensive review.[16, 28-29] While some peer-reviewed articles support the Republican participant's assertion that fetuses can feel pain before 20 weeks' gestation[30-31], the most comprehensive systematic review of the evidence found that fetal perception of pain is unlikely before the third trimester.[32] Our study does not provide

sufficient examples of using questionable research to support policy positions to conclude anything about whether this practice is more common among one political party or the other.

Our finding that stories pack more communication power than evidence is not novel.[33-34] However, our research suggests not just that legislators use stories because they find them more compelling than facts; they actually see evidence from science as less trustworthy, less *real*, than personal experience or anecdotes. While researchers sometimes explicitly refer to a hierarchy of evidence that deems rigorous randomized control trials the most valuable type of evidence,[35] these legislators' own implicit hierarchy of evidence appears to value personal stories above research evidence. In particular, legislators reported anecdotes about unintended pregnancy and abortion that they had read on social media and in the news, unlike legislators in our analysis on substance use in pregnancy, who shared personal stories largely from friends and colleagues.[24] This difference could be due to the fact that because of abortion stigma, many women avoid directly sharing their personal abortion experiences with others.[36-37] Thus, mediated stories (as opposed to personally shared ones) may be even more important in abortion policymaking than in other health issues. This finding suggests the potential for more qualitative research on abortion to provide the anecdotes that legislators find compelling. In addition, more research is needed on legislators' decision-making to explore what factors influence their trust in scientific evidence and why they consider personal anecdotes more "real."

Rather than finding unique uses of evidence in the abortion policy context, the findings of this study are unsurprising from a political science perspective. That policymakers use research mostly to affirm pre-existing beliefs echoes much prior work on evidence use in policy.[1,5-6] We demonstrate that policymakers engage in motivated reasoning, the often-unconscious process by which information is selected and retained in order to confirm prior beliefs, which has been well documented among the general public[38-40] but not specifically among legislators.

The extent to which policymakers view evidence on abortion as suspect or biased may surprise some, but this research affirms prior studies finding that, especially on controversial issues, evidence is not persuasive to anyone who is not already inclined to agree with a given position.[8, 41] We find that some Republicans mistrust production of evidence itself; this echoes opinions among Republicans more broadly, as U.S. conservatives' trust in universities as public institutions has never been lower.[42] Finally, our finding that state legislators accept evidence from trusted sources, rather than assessing the quality of research for themselves, echoes observations that people come to believe expert claims not by reading the research itself, but by hearing about it from trusted others.[43]

Although our data were rich, several limitations of this work should be noted. First, our sample is not representative of the overall sampling frame. Despite our attempts to oversample Republicans, our pool of participants is more Democratic, as well as more female, than the overall representation in the General Assemblies of all three states.[44] Second, being flexible to meet subjects' time constraints meant we did not ask exactly the same questions of each participant, which may limit the findings.[27] Third, the states where we conducted this research have very different records on abortion: the Guttmacher Institute

has rated Maryland “Supportive” while Virginia and North Carolina are both rated “Extremely Hostile” to abortion rights.[13] While we deliberately sought out states with a range of abortion policies, we acknowledge that this contrast may constrain the transferability of our findings. Finally, as of data collection, none of the three states had passed proactive legislation to protect abortion rights; interviewing legislators in states that have such laws might yield different results.

This study also has several unique strengths. By exploring state lawmakers’ use of evidence in making abortion policy, it illuminates one aspect of the dramatic increase in state-level restrictive abortion policies,[13] an active policy trend in U.S. states with implications for millions. It also adds to the critical discussion over how evidence is (or is not) used in making public health policy. Our flexible, in-person interview process allowed us to probe legislators’ views in depth, contributing an important understanding of the perspectives of individuals whose decision-making has broad public impact.[45] That our findings echo political science literature on policy use of evidence on other topics suggests that this work may apply more broadly to other health policy topics beyond abortion.

We believe this work has several important implications for those who wish to see more evidence-informed lawmaking on reproductive health. The work suggests that further research about the safety of abortion or the harms of not having access to abortion care will not stop the flood of non-evidence-based state-level restrictive abortion policies. However, several notable court decisions in recent years highlight the critical role of research evidence in informing judicial interpretation of and possible limits on restrictive abortion laws.[19, 46] Assuming judicial decision-making continues to value evidence related to abortion, this suggests that researchers should consider the evidence needs of the judicial branch, including litigators and expert witnesses, in addition to those of legislators, when planning their dissemination efforts.

This work also highlights the importance of intermediaries in influencing legislators’ policy agendas and providing them with useful evidence. To increase the utility of research, reproductive health researchers should work with established intermediaries, such as lobbyists, local experts, organizational partners, and colleagues with whom lawmakers already have trusting relationships, to convey research findings to state lawmakers. Stories of “authentic voices,” people who have direct experience with the issues being addressed by policy, may help bring to life key points from the research evidence; qualitative research can be a valuable source of such stories.

With more realistic expectations for how research interacts with policy decision-making, researchers and practitioners may be better able to target their dissemination and education efforts to maximize the contribution of evidence to policymaking.

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Implications of this work: To increase the utility of research, reproductive health researchers and practitioners should 1) work with established intermediaries to convey findings to lawmakers; 2) present stories that illustrate research findings; and 3) consider the evidence needs of the judicial branch, in addition to those of legislators.

Table 1.

Policies on abortion in study states, before and during data collection period

State	Abortion policies in place pre-2017	Major abortion bills introduced in 2017 legislative session (with legislative outcome)
MD	<ul style="list-style-type: none"> All abortions, regardless of method, must be performed by a licensed physician. 	None
NC	<ul style="list-style-type: none"> All abortions, regardless of method, must be performed in a facility that meets the standards of ambulatory surgical centers No abortions may be performed after 20 weeks' gestation (unless the woman's life is endangered) A patient must wait 72 hours after state-mandated counseling before an abortion Mandated counseling includes information on risks to future fertility and mental health (both scientifically unproven) Telemedicine may not be used to provide medication abortion Ultrasound is required before all abortions Public funding of abortions is limited to cases of rape, incest or life endangerment A parent must consent before an abortion is provided to a minor All abortions, regardless of method, must be performed by a licensed physician 	<ul style="list-style-type: none"> "Ashley's Law": Revises mandated counseling to include information on potential reversibility of medication abortion. (Failed to pass) "Unborn Child Protection from Dismemberment Act": Bans abortion by dilation and evacuation unless necessary to prevent serious health risk to the woman. (Failed to pass) "Whole Woman's Health Act": Repeals abortion restrictions that are in conflict with U.S. Supreme Court's decision in <i>Hellerstedt v Whole Woman's Health</i>. (Failed to pass)
VA	<ul style="list-style-type: none"> Each abortion facility must have an agreement with a local hospital to transfer patients in case of complications Ultrasound is required at least 24 hours before an abortion; the provider must offer the patient the option to view the image An in-person counseling appointment is required at least 24 hours before abortion No abortions may be performed after 24 weeks' gestation (unless the woman's life is endangered) Public funding of abortions is limited to cases of rape, incest, fetal anomaly or when the woman's life is endangered A parent must be notified and consent before an abortion is provided to a minor All abortions, regardless of method, must be performed by a licensed physician 	<ul style="list-style-type: none"> Amends mandated counseling to include scientifically unproven information on abortion's risks to future fertility and other health risks; levies a \$5000 penalty on physicians who do not comply. (Failed to pass) "Pain-Capable Unborn Child Protection Act": Bans abortions after 20 weeks' gestation. (Failed to pass) "Whole Woman's Health Act": Affirms right to abortion, repeals abortion facility restrictions, repeals mandated counseling on scientifically unproven risks of abortion, mandates insurance coverage of abortion. (Failed to pass) Provides that a woman seeking abortion may waive waiting period requirements or informed written consent requirements. (Failed to pass)

Sources: Gold and Nash 2017, National Academies of Sciences 2018, websites of the General Assembly of MD, NC and VA

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Table 2.

Characteristics of Study Participants, by State

	MD	NC	VA	TOTAL
N	10	8	11	29
Gender				
<i>Female</i>	4	3	5	12
<i>Male</i>	6	5	6	17
Political Party				
<i>Democrat</i>	6	7	7	20
<i>Republican</i>	4	1	4	9
Legislative Body				
<i>House of Delegates</i>	3	4	6	13
<i>Senate</i>	7	4	5	16
Office Held				
<i>Legislator</i>	8	8	10	26
<i>Legislative Aide</i>	2	0	1	3
Years in Office (<i>median, range</i>)	6.5 (1-22)	5.5 (2-15)	13.5 (2-37)	8 (1-37)