

# Impact of Policy Changes and Program Support on Family Planning Goals among Plastic Surgery Trainees

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**Background:** In 2020, the American Board of Plastic Surgeons announced an update in the leave policy for plastic surgery trainees, extending personal leave to 12 weeks without delay in graduation. Simultaneously, the Accreditation Council for Graduate Medical Education announced their update in lactation policy. This study sought to understand the influence of the policy change on plastic surgery trainees' goals for family planning and lactation.

**Methods:** An online 32-question survey was developed to evaluate plastic surgery trainees' perceptions of family planning and perceived program support in the United States. The survey was approved by the American Council of Academic Plastic Surgeons Research Committee and sent out to a total of 216 plastic surgery programs.

**Results:** One hundred thirty plastic surgery trainees completed the survey. Most respondents were women, between the ages of 30 and 34 years, and married. Forty-five (34.6%) respondents or their partners had experienced pregnancy or live birth during their training. More than 70% did not feel that they had adequate time for leave. Female trainees faced more barriers than men, including having a partner in training, concern for their pregnancy, and burdening their co-residents during leave. The majority stated that their decision to apply to plastic surgery residency was influenced by program support for family planning compared with policy changes.

**Conclusions:** This survey highlighted that the new policies benefit trainees who consider starting a family during training. Despite this, there are still challenges that need to be addressed to help foster a fair environment for trainees to work and have a family. (*Plast Reconstr Surg Glob Open* 2024; 12:e6158; doi: [10.1097/GOX.0000000000006158](https://doi.org/10.1097/GOX.0000000000006158); Published online 13 September 2024.)

## INTRODUCTION

Women are entering medicine in increasing numbers within the past few decades. In the 1960s, approximately one in 10 medical students were women. These statistics have evolved, and by the early 2000s, matriculants were split about 50% men and woman.<sup>1</sup> In plastic surgery, we have seen female representation increase as well. Female representation within plastic surgery residency continues to increase in number, and in fact, more than half of those

who matched in 2021 and 2022 were woman (56% and 52%, respectively).<sup>2</sup>

Surgical training is lengthy and overlaps with the most common childbearing years. Previous research has shown that women surgeons are significantly more likely than their male peers to delay parenthood until after training, but for many trainees, it may not be desirable or feasible to postpone starting a family until they are in practice.<sup>3</sup> Demographic shifts among medical trainees make these issues increasingly relevant. In 2010, Troppmann et al<sup>3</sup> published an article after conducting a nationwide survey that was sent to more than 3500 board-certified surgeons to assess professional and personal/family life situations, perceptions, and challenges for women versus men surgeons. Their conclusions state: "Strategies to maximize recruitment and retention of women surgeons should include serious consideration of alternative work schedules and optimization of maternity leave and childcare

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opportunities.” Scrutiny of resident work-life balance has been a heavily studied and evolving area. An example of this is reflected in changes in duty hour limitations for trainees. Furthermore, parental leave and lactation policies are changing in favor of fostering a supportive work environment for trainees. In July 2020, the American Board of Medical Specialties announced a progressive leave policy that will offer a minimum of 6 weeks away once during training for purposes of parental, caregiver, and medical leave. The extended leave is possible without exhausting time allowed for vacation or sick leave and without requiring an extension in training. Interestingly, before this, in 2019, the American Board of Plastic Surgeons (ABPS) and American College of Obstetrics and Gynecology announced likely the most progressive leave policies among resident training programs.<sup>4</sup>

The new policy “established an optional 12 weeks of personal leave that is available to residents in integrated, independent and competency-based plastic surgery residency training programs. The 12 weeks of personal leave may only be used for maternity leave, paternity leave, medical leave, foster care, adoption, family leave, or elective rotations (both international and domestic). Personal leave can be used exclusively for leave as defined by the Board, exclusively for rotations or any combination of both.” This is without a delay in graduation (American Board of Plastic Surgery). This change in policy addresses the fact that an increasing number of residents are parents or becoming parents during their training, and so revamping the prior parental leave policy theoretically should demonstrate a supportive work environment and may also affect recruitment and retention of women in academic careers.<sup>5,6</sup>

In addition, research conducted by Sandler et al<sup>7</sup> revealed that issues surrounding breastfeeding and child-care are common stressors for residents with children. Residents interviewed emphasized the personal importance of providing their infants with breast milk given long work hours and time away from their child but expressed difficulty in finding time to express breast milk during the workday.<sup>7</sup> In 2018, the Accreditation Council for Graduate Medical Education (ACGME) instituted the requirement of lactation rooms and protected time for lactation in training hospitals.

Changes in policy surrounding parental leave and lactation are relatively new, and it is not clear what role these changes have in recruiting trainees who wish to have families, specifically within plastic surgery. It is known that adequate time for leave is correlated with improved worker retention and decreased turnover, avoiding recruitment costs and the disruption of discontinuity, onboarding, and retraining for the employer.<sup>8</sup> Furthermore, health benefits of maternity leave for the mother include improved duration of breastfeeding, recovery to prepregnancy habitus, decreased rate of postpartum depression and burnout, and decreased anxiety.<sup>9</sup> With this in mind, we aimed to study what effect the progressive ABPS leave policy plus the introduction of the ACGME lactation policy had on the decision of plastic surgery trainees to choose their specialty. Further, we wanted to understand if plastic surgery

### Takeaways

**Question:** Did the American Board of Plastic Surgeons 2020 Personal Leave Policy update impact plastic surgery trainees’ decision to pursue plastic surgery as a specialty or impact their family planning decision-making?

**Findings:** The new policies positively benefited trainees to consider starting a family or pumping while training, and perceived support for family planning positively influenced a significant portion of those who applied to plastic surgery residency since implementation.

**Meaning:** Overall, although the culture of plastic surgery residency programs is improving as it relates to family planning, there is still room for significant improvement.

trainees feel supported by their program leadership and colleagues to take advantage of these policies because, ultimately, policy change matters most when it is embraced and encouraged by the program as a whole.

### METHODS

An online 32-question survey was developed to evaluate plastic surgery trainees’ perceptions of family planning, lactation, and perceived program support in the United States. The survey was approved by the American Council of Academic Plastic Surgeons Research Committee, which was sent out on two occasions electronically to a total of 216 plastic surgery program directors or coordinators. The survey included questions regarding demographics, plastic surgery program characteristics, parental leave policies, lactational policies, and perceived program support toward having families during training and support for protected time/locations for lactation if applicable. Study data were collected and managed using REDCap electronic data capture tools hosted at Mayo Clinic.

### RESULTS

#### Demographics

The average respondent was female, 30–34 years old, married, and training in an integrated program. Respondents from all postgraduate year (PGY) levels participated almost equally (Table 1).

#### Pregnancy and Lactation during Training

The survey queried plastic surgery trainee’s history of pregnancy and lactation (Table 2). Forty-five (34.6%) respondents had experienced (or their partner experienced) pregnancy or live birth during their training. For both men and women, the majority of pregnancies or live births occurred during PGY-4 (Fig. 1). The average age of men and women at first live birth was 29 and 32 years, respectively (Fig. 2). About 39% of respondents (11 of 18 men, 14 of 23 women) quoted obstetric complications during their training. Of those who had experienced live birth, the majority breastfed or pumped. For those who did not, the reasons quoted included physiological reasons and time commitment (Table 2).

**Family Planning during Training**

As for those respondents without children during the time of the survey, 12 of 23 men (52.17%) and 27 of 58 women (46.55%) stated that they would plan on having children during their training (Fig. 3). Men and women gave similar answers to what they felt were barriers to having children during training with the majority quoting “work hours and demand of training.” Women responded with more barriers to childbearing during training than their male counterparts, including timing of their

**Table 1. Plastic Surgery Trainee Demographics**

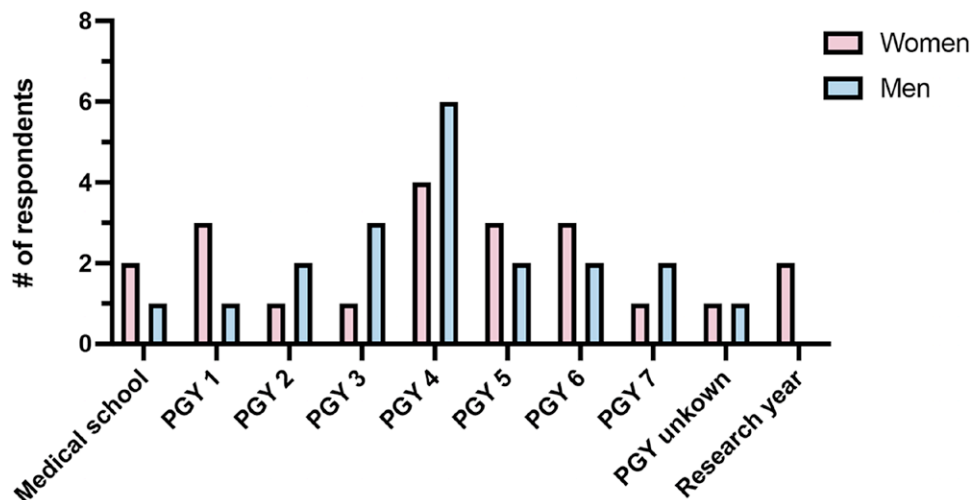
Variable	N
<b>Sex</b>	
Female	87/130 (66.9%)
Male	43/130 (33%)
<b>Age distribution, y</b>	
25–29	43/125 (34.4%)
30–34	70/125 (56%)
>35	12/125 (9.6%)
<b>Marital status</b>	
Single	15/130 (11.54%)
In a relationship	31/130 (23.85%)
Married	84/130 (64.62%)
<b>Program type</b>	
Integrated	117/129 (90.7%)
Independent	11/129 (8.53%)
Fellowship	1/129 (0.78%)
<b>PGY</b>	
PGY-1 to PGY-2	43/129 (33.3%)
PGY-3 to PGY-4	36/129 (27.91%)
PGY-5 to PGY-6	39/129 (30.23%)
PGY-7 to PGY-9	11/129 (8.53%)

Total, 130; one survey respondent completed no demographic information. The number varies within each category because not all respondents answered each question.

**Table 2. Plastic Surgery Trainee Pregnancy and Lactation Characteristics**

Question and Answers	Number and % of Replies
Have you or your partner experienced pregnancy during plastic surgery training?	
Yes	45/130 (34.6%) 20/43 men; 25/87 women
No	85/130 (65.38%)
If you or your partner have experienced pregnancy during training, what was the result?	
Live birth	31/45 (68.88%) 15/20 men; 16/25 women
Currently pregnant	14/45 (31.11%) 5/20 men; 9/25 women
Were there prenatal or obstetric complications?	
Yes	16/41 (39.02%) 7/18 men; 9/23 women
No	25/41 (60.97%) 11/18 men; 14/23 women
If you have experienced pregnancy resulting in live birth during training, did you breastfeed or pump?	
Yes	14/16 (87.5%)
No	2/16 (12.5%)
If you did not breastfeed or pump during your training, please comment on your reasoning:	
Physiological reasons	1/3 (33.3%)
Time commitment/inconvenience	1/3 (33.3%)
Lack of support in the workplace	
Lack of lactation rooms in the workplace	
Wish not to share	
Other	1/3 (33.3%)

**Live birth/pregnancy during training**



**Fig. 1.** Timing of training and live births or pregnancies.

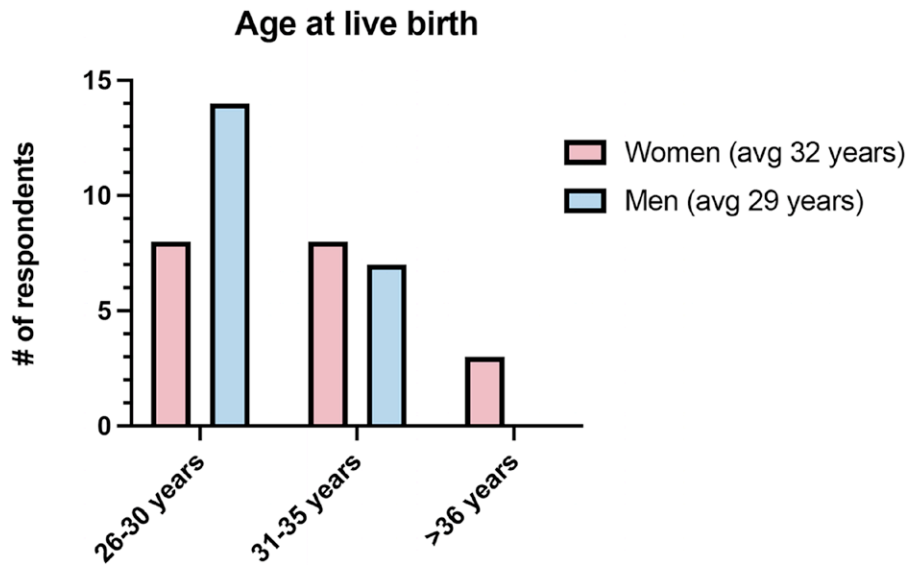


Fig. 2. Age at live birth.

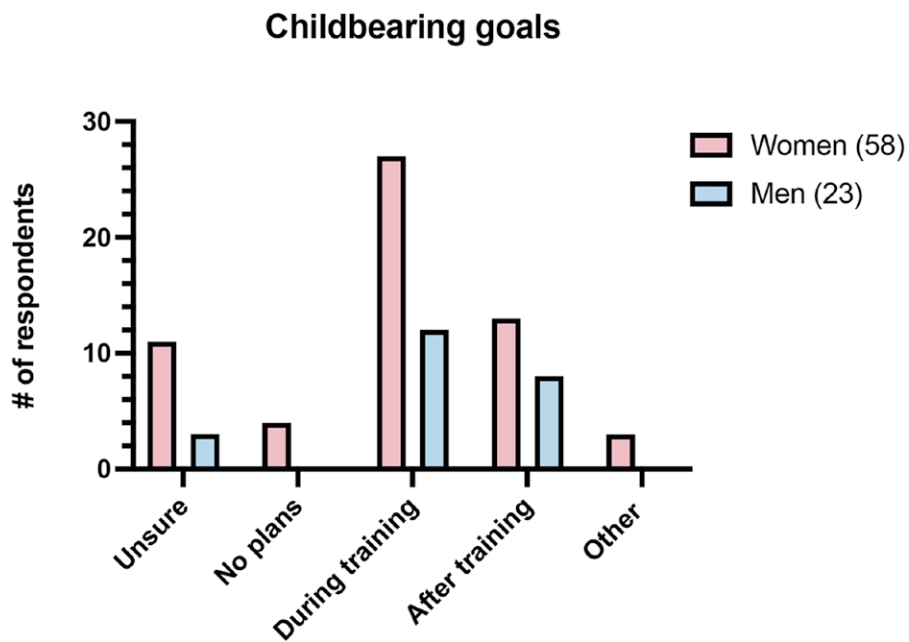


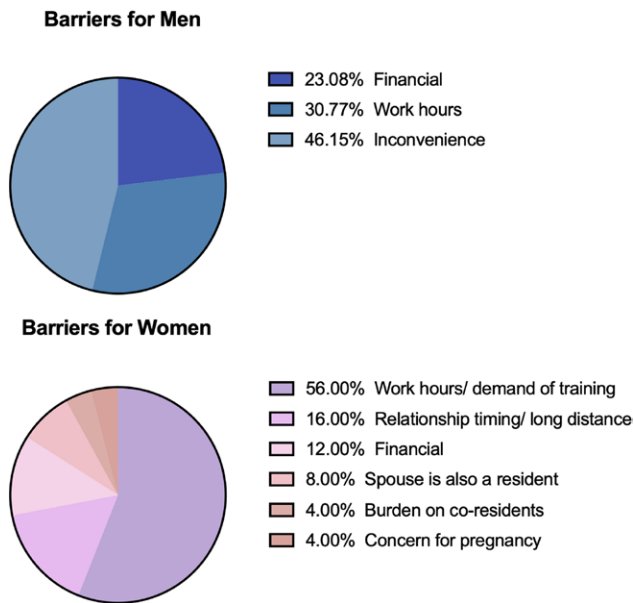
Fig. 3. Goals for childbearing in plastic surgery trainees.

relationship/long distance relationship, their spouse also being a resident, placing a burden on their co-residents, and concern for their pregnancy during training (Fig. 4).

**Perception of ABPS Leave Policy and ACGME Lactational Policies**

Plastic trainees were surveyed about their thoughts on the ABPS leave policy and ACGME lactational policies, which can be found in Table 3. For those who had children during training before the changes in the ABPS leave policy, the majority (17 of 25; 70.83%) felt that they did not have sufficient time for parental leave. At the time of survey

data acquisition, the mean time for paternity leave was 2.6 weeks and 9.4 weeks for maternity leave (Fig. 5). Those respondents who started their training after the execution of the ABPS personal leave policy change and ACGME lactational policy change (nine of 43; 20.04%) stated that these changes positively influenced their decision to apply to plastic surgery residency. More than 75% of respondents (98 of 130) felt the ABPS policy change represents improvement in addressing the work-life balance of surgical trainees, and almost 50% of respondents (63 of 130) stated that this change in policy would make them more likely to want to have children during training (Table 3).



**Fig. 4.** Barriers to having children during residency.

Of those who had children after the implementation of the ABPS policy change and ACGME lactational policy change, eight (57.14%) of 14 stated that their decision to get pregnant was *somewhat* influenced by the ABPS policy change compared with nine (64.2%) of 14 who stated that their decision was *not at all* influenced by the ACGME policy change. Ninety-three (71.54%) of 130 felt that the change in the ACGME policy represents an improvement in addressing the work-life balance of plastic surgery trainees. Seventy-eight (60%) of 130 respondents believe their program leadership is unaware of the changes in the ABPS leave policy compared with 64 (49.23%) of 130 who believe that their program leadership is aware of the changes in the ACGME lactational policy (Table 3).

### Program Support

Finally, respondents were surveyed on their perceptions of program support as it relates to family planning and lactational goals (Table 4). A greater proportion of respondents stated that their decision to apply to plastic surgery residency training was influenced by program support for family planning and lactation (21 of 54; 38.8%) compared with policy changes (eight of 43; 18.6%). The majority of female respondents (six of nine) who were pregnant during training stated that their decision to get pregnant was *almost completely* influenced by perceived program support compared with their male counterparts (three of five men stated *not at all*; two of five men stated *somewhat*). Regarding family planning, most respondents feel supported by their program director (88 of 129; 68.21%), attendings (75 of 128; 58.59%), and co-residents (89 of 130; 68.46%) *all of the time*. Most respondents said that their program has a formal lactational policy in place (86 of 130; 66.15%), and the majority (82 of 130; 63.07%) feel supported to pump while at work.

Overall, 68 (52.3%) of 130 felt *satisfied* or *very satisfied* with the state of plastic surgery training program

leadership and their commitment to supporting their trainee's goals for family planning. Furthermore, 116 (89.23%) of 130 feel that plastic surgery training programs are making positive strides toward supporting their trainees in family planning. Free-text comments from several survey respondents can be found in Table 5.

## DISCUSSION

Plastic surgery trainee demographics are evolving. Less than 2% of trainees were woman about 50 years ago, and in 2019, the ratio of male to female residents was 1.3:1.<sup>10,11</sup> With such a significant increase in female representation throughout plastic surgery training programs, parental leave policies have improved. Since 2021, the American Board of Plastic Surgery has implemented a leave policy of up to 12 weeks without a delay in graduation. Before this, the median leave policy among all residency specialties was 4 weeks for both men and women.<sup>12</sup> Furthermore, the ACGME updated their policy to allow protected time for trainees to pump during work hours. This study surveyed plastic surgery trainees to query whether these updated policies (1) affected their decision to have children during training, (2) affected their decision to breastfeed or pump during training, (3) represented improvement in the work-life balance of trainees, and (4) whether trainees felt supported by their programs to take advantage of these policies.

Our results show that since implementation of the ABPS policy, the average paternity and maternity leave time are 2.6 and 9.4 weeks, respectively, suggesting that women are taking more time off for maternity leave. Longer parental leave is associated with lower rates of postpartum depression, improved maternal health, longer duration of breastfeeding, and increased compliance with attending well child visits.<sup>13</sup> Nonchildbearing parental leave is associated with improved bonding, improved work-life balance, and improved child health. Furthermore, employers seem to reap the benefits as well when parents take advantage of longer leave, with Vassallo et al<sup>14</sup> finding greater retention of women in the workforce, higher employee satisfaction, and decreased turnover.<sup>14</sup> Unfortunately, when it comes to demanding surgical training, there are pitfalls to longer parental leaves such as the valid concern for the increased workload placed on co-residents and concern for clinical preparedness by the time of graduation. Hariton et al<sup>8</sup> revealed that a small minority of obstetrics and gynecology residency programs hire temporary staff to help cover the load of trainees on leave. Furthermore, some programs may consider adding a trainee to their annual match. Understandably, these solutions may be financially prohibitive to many programs. Fortunately, our survey revealed that about 70% of respondents feel supported by their co-residents to pursue a family during training. As for concern for clinical preparedness in trainees who have missed time during parental leave, a wise solution proposed by many has been competency-based requirements rather than time requirements to qualify for graduation.<sup>4</sup> Of course, this would only benefit the parent's timeline if requirements were still met before graduation. Another suggestion proposed by Kasemodel et al<sup>4</sup> may be that



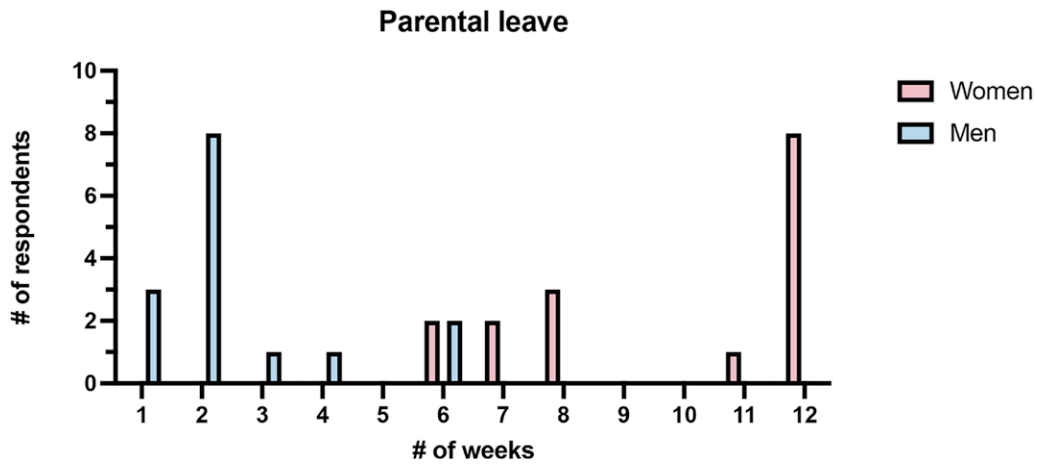
**Table 3. Plastic Surgery Trainee Responses Regarding Leave and Lactational Policies**

Question and Answers	Number and % of Replies
For those who started their training before the change in the ABPS leave policy, was there a satisfactory time for parental leave?	
Yes	7/24 (29.16%) 4/10 men; 3/14 women
No	17/25 (70.83%) 6/10 men; 11/14 women
If you started residency <i>after</i> the execution of ABPS personal leave policy change or ACGME lactation policy change, did this influence your decision to apply to plastic surgery residency?	
Yes	8/43 (18.6%)
Female	7/33 (21.2%)
Male	1/10 (10%)
No	34/43 (79.06%)
With the changes in the ABPS leave policy, please choose which phrase(s) pertain to you:	
I/my partner would have started family planning sooner, had this policy been in place throughout my training	21/130 (16.1%); 9/43 men, 12/87 women
The policy change has made me/my partner more likely to want to get pregnant during training	63/130 (48.4%); 14/43 men, 49/87 women
The policy change has no bearing on my position on family planning	40/130 (30.7%); 16/43 men, 24/87 women
The policy change represents improvement in addressing the work-life balance of surgical trainees	98/130 (75.38%); 28/43 men, 70/87 women
I/my partner are more likely to take parental leave of up to 6 wk	46/130 (35.38%); 13/43 men, 23/87 women
I/my partner are more likely to take parental leave of up to 12 wk	49/130 (37.7%); 10/43 men, 39/87 women
My program leadership is aware of and supportive of this change in policy	78/130 (60%)
Was you/your partner's decision to get pregnant at all influenced by the changes in the ABPS personal leave policy?	
Not at all	4/14 (28.57%) 4/5 men; 0/9 women
Somewhat	8/14 (57.14%) 1/5 men; 7/9 women
Almost completely	2/14 (14.28%) 0/5 men; 2/9 women
Was your/your partner's decision to get pregnant at all influenced by the changes in the ACGME lactation room almost completely policy?	
Not at all	9/14 (64.2%) 5/5 men; 4/9 women
Somewhat	5/14 (35.7%) 0/5 men; 5/9 women
Almost completely	0%
If you breastfed or pumped during training, were there lactation rooms available and protected time for pumping?	
Yes	5/6 (83.33%)
No	1/6 (16.66%)
With the change in the lactation area policy announced by ACGME please answer the following:	
I/my partner would have breastfed/pumped had this policy been in place throughout training	1/130 (0.77%) 1/43 men
I/my partner would have breastfed/pumped longer had this policy been in place throughout training	2/130 (1.54%) 1/43 men/ 1/87 women
The policy change has made me/my partner more likely to breastfeed/pump during training	43/130 (33.08%) 8/43 men; 35/87 women
The policy represents improvement in addressing the work-life balance of trainees	93/130 (71.54%) 24/43 men; 69/87 women
My program leadership is aware of and supportive of this change in policy	64/130 (49.23%) 17/43 men; 47/87 women

fellowships could be more lenient with their start dates for residents who took parental leave and needed to extend their training.

Since the implementation of the ABPS leave policy and ACGME lactational policy, our survey found that about 47% of respondents now consider having children during their training. In 2016, Blair et al<sup>15</sup> published a survey-based report of more than 269 residency programs showing that 40% of respondents planned to have children during their training. Considering that plastic surgery residency is more physical and temporally taxing than other residency programs surveyed, the data would suggest that significantly more plastic surgery trainees would consider having children during training since the update in parental-related policies.

As for breastfeeding accommodations, the ACGME lactation policy states that programs are required to have clean and private facilities for lactation that have refrigeration capabilities within appropriate proximity for safe patient care. It was also noted that time required for lactation is also critical for the well-being of the resident and resident's family. There is strong evidence to support that breastfed babies have lower rates of infection, sudden infant death syndrome, and asthma, so supporting residents in their pursuit to provide breastmilk to their infants is important.<sup>16</sup> Our survey showed that because this policy was updated 87% of the respondents who had experienced live birth breastfed or pumped. This suggests that allowing protected time and space for trainees to pump fosters an environment where this is prioritized.



**Fig. 5.** Parental leave.

Our survey is the first to examine whether the changes in the ABPS leave policy or ACGME lactation policy contribute to addressing trainee work-life balance. A significant portion of respondents felt that these policy changes represent improvements, which suggests that the culture of plastic surgery residency programs and leadership are evolving. This is important because this implies that physicians who struggle with work-life balance are less likely to pursue academic leadership positions or promotions, which results in academic institutions missing an opportunity to hire a highly qualified, talented surgeon.<sup>4,17</sup>

Finally, our survey wanted to examine trainee-perceived support for family planning by program leadership. In 2020, Sharpe et al<sup>18</sup> published an article where program directors of anesthesiology residency programs were surveyed. Regarding trainee timeliness, technical skill, scholarly activity, procedural volume, and standardized test scores, there was a statistically significant difference between program director's perceptions of new-parent men and women, with women being perceived as inferior. Furthermore, about half of the program directors perceived that parental leave delayed board certification and affected fellowship opportunities. Fortunately, our survey found something different, with most respondents expressing perceptions of overwhelming support for family planning during training, specifically within plastic surgery. Still, our free-text portion of the survey did reveal the concern for having to compromise professional elective opportunities because the 12 weeks of leave allotted by the ABPS would have to be distributed among parental leave and elective time. This, in our opinion, should not be the case, and elective time should be protected time aside from a full 3-month leave period to attend to one's newborn. Kasemodel et al<sup>4</sup> nicely stated that with the coronavirus disease of 2019 pandemic, residency training was interrupted, and elective procedures were canceled for several months, impacting resident case numbers and education. Medical boards were able to rise to the occasion and provide mechanisms for residents to still graduate, and such flexibility could similarly allow competent

resident parents to take parental leave without extending their training.<sup>4</sup>

There are undoubtedly still barriers trainees face when considering having a family during training. Our survey found that men quoted that work hours, finances, and overall inconvenience contributed to why they may defer or delay having a family during training. Women face similar barriers, and more, like also having a partner in training, having their partner geographically far away, physical concern for their pregnancy, and worrying about placing a burden on their co-residents during leave. Although some of these barriers are out of leadership control, others can be addressed.

Physician parents spend an average of \$21,600–\$25,800 per child per year on childcare.<sup>17,19</sup> This is on top of debt accumulated over their education. A solution to this at an institutional level is either to provide childcare for trainees or to raise their annual compensation. In 1994, Mackinnon and Mizgala<sup>20</sup> wrote that pregnancy is a societal necessity with positive benefits for all, and they called for written maternity leave policies and 24-hour childcare. The latter still has yet to be addressed by program leadership or the ACGME. Wallace et al<sup>19</sup> found that as of 2021, no plastic surgery trainees surveyed had access to on-site childcare. Some proposed solutions by other institutions include a subsidy program for (pediatrics) residents to support day care costs at any local facility during the first 6 months of a child's life. The Mayo Clinic opened a sick-child day care center after estimating that the hospital system was losing a half-day of work per employee per year owing to a lack of backup childcare for ill children. They found that the saved work days offset the day care center's operating costs.<sup>21,22</sup>

Interestingly, the topic of infertility in surgical trainees was not brought up within our free-text section of the survey. In hindsight, this would have been an important data point to catch because it is well known that trainees postpone childbearing, sometimes out past graduation until establishment and stability of their career. This predisposes them to infertility and complications associated with advanced maternal age. Dr. Ariela Marshall

**Table 4. Plastic Surgery Trainee Responses Regarding Perceived Program Support**

Question and Answers	Number and % of Replies
Was your decision to apply to plastic surgery residency at all influenced by your perceived improvement of program support for family planning/lactation goals of plastic surgery trainees?	
Yes	21/54 (38.8%); 4/12 men; 17/42 women
No	33/54 (61.1%) 8/12 men; 25/42 women
If you or your partner are currently pregnant: Was your/your partner's decision to get pregnant at all influenced by your/your partner's perceived program support?	
Not at all	4/14 (28.57%) 3/5 men; 1/9 women
Somewhat	4/14 (28.57%) 2/5 men; 2/9 women
Almost completely	6/14 (42.85%) 0/5 men; 6/9 women
If you breastfed or pumped during training, did you feel supported by your program to take the time to pump?	
All of the time	3/6 (50%)
Some of the time	3/6 (50%)
Never	0/3 (0%)
Regarding family planning, do you currently feel supported by your program director?	
All of the time	88/129 (68.21%) 32/43 men; 56/86 women
Some of the time	39/129 (30.23%) 11/43 men; 28/86 women
Never	2/129 (1.55%) 2/86 women
Regarding family planning, do you currently feel supported by the majority of your program attendings?	
All of the time	75/128 (58.59%) 28/43 men; 47/85 women
Some of the time	51/128 (39.84%) 15/43 men; 36/85 women
Never	2/128 (1.56%) 2/85 women
Regarding family planning, do you currently feel supported by the majority of your co-residents?	
All of the time	89/130 (68.46%) 33/43 men; 56/87 women
Some of the time	38/130 (29.23%) 10/43 men; 28/87 women
Never	3/130 (2.3%) 3/87 women
Does your program/hospital currently provide lactation rooms?	
Yes	66/130 (50.76%) 23 men; 43 women
No	13/130 (10%) 1 male; 12 women
Unsure	51/130 (39.23%) 19 men; 32 women
Does your program currently have a lactation policy in place?	
Yes	28/130 (21.53%) 11 men; 17 women
No	16/130(12/3%) 2 men; 14 women
Unsure	86/130 (66.15%) 30 men; 56 women
Do you perceive that your program is supportive regarding lactation/pumping within the workplace?	
Yes	82/130 (63.07%) 29/43 men; 56/87 women
No	5/130 (3.84%) 5/87 women
No opinion/unsure	40/130 (30.77%) 14/43 men; 26/87 women
Please state how you feel overall about the state of plastic surgery training programs and their commitment to supporting family planning in their trainees:	
Very unsatisfied	1/130 (0.077%) 0/43 men; 1/87 women
Unsatisfied	23/130 (17.69%) 4/43 men; 19/87 women
Neither satisfied nor unsatisfied	38/130 (29.23%) 16/43 men; 22/87 women
Satisfied	57/130 (43.84%) 20/43 men; 37/87 women
Very satisfied	11/130 (8.46%) 3/43 men; 8/87 women
Overall, I feel that plastic surgery training programs are making positive strides towards supporting their trainees in family planning:	
True	116/130 (89.23%) 42/43 men; 74/87 women
False	5/130 (3.85%) 5/87 women
No opinion	9/130 (6.92%) 1/43 men; 8/87 women

at the Mayo Clinic in Rochester helped create an infertility task force with the American Medical Women's Association, which is advocating for more accommodations for physicians who wish to start families, such as giving women the option to front-load their residency

work if they know they want to try to become pregnant later in their training.<sup>23</sup>

Finally, the concern for one's pregnancy during training is a valid one. Our survey demonstrated that nine (39%) of 23 of the female respondents who experienced



**Table 5. Free-text Comments**

Free-text Comments
• Despite policy change and program support, barriers to having a family during residency still include the length of training, childbearing age during training, high demands of training, and low pay for services provided
• Concern for competency requirements
• Concern for sacrificing elective time for parental leave and the effects this could have on their future career opportunities
• Childcare is an issue, and several respondents commented on residency programs providing access to 24-h childcare
• Some respondents felt female attendings were more understanding of residents/fellows pursuing families during training
• Despite pumping during training, some respondents felt pressured not to miss operating room time
• Several respondents commented that trainees in their third trimester should be protected from participating in night float/24-h call shifts as there is evidence to support that it is harmful to pregnancy
• Some respondents would be in favor of freezing their eggs and deferring pregnancy if this was provided by their program
• One respondent commented on the guilt they felt for their co-resident's workload while they were on parental leave, so they took less time for maternity leave (7 instead of 12 wk)
• The perception of discrimination for being pregnant during training was described by one respondent by both their attendings and co-residents

pregnancy experienced prenatal or obstetric complications, which is almost twice that of the general population (19%) as of 2018 according to Blue Cross Blue Shield.<sup>24</sup> There is literature to suggest that complication rates among resident physicians range between 34% and 57%, and hypothesized explanations for this include that it is due to higher rates of hypertension in surgical residents leading to intrauterine growth restriction. Poor nutrition in surgical trainees and advanced age during pregnancy and long work hours were also quoted.<sup>25</sup> Strengths of our study include response rate and the dual quantitative/qualitative nature of results.

Limitations of our study include that it is a survey-based study subject to response bias. It was impossible to follow up with nonresponses, as the survey was distributed anonymously via program directors or coordinators after approval by ACAPS.

Overall, although the culture of plastic surgery residency programs is improving as it relates to family planning, there is still room for significant improvement. This survey highlighted that the new policies positively benefited trainees considering starting a family or pumping while training. We found that policy changes and perceived support for family planning positively influenced a significant portion of those who applied to plastic surgery residency since implementation. Despite this, there are still challenges that need to be addressed to help foster a fair environment for trainees to work and have a family.

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## DISCLOSURE

*The authors have no financial interest to declare in relation to the content of this article.*

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