

Supplemental Online Content

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eMethods. Sample survey

This supplemental material has been provided by the authors to give readers additional information about their work.

eMethods. Sample survey

Pregnancy complications, infertility, and family planning in surgeons: impact on surgeon burnout and attrition

Please complete the survey below. Please do not do this survey more than once. Thank you!

Demographics

Do you identify as ...?

- Male
- Female
- Prefer not to answer/not listed

What relationship status best describes your current situation?

- Single, never married
- Married or domestic partnership
- Significant other
- Widowed and single
- Divorced and single
- Separated and single

Is your spouse or partner... ?

- Male
- Female
- Prefer not to answer

Is your spouse or partner... ?

- A physician
- A surgeon
- Works in another field
- Not employed

How many hours a week does your spouse/partner work (excluding domestic obligations)?

- 0 to < 20 hours
- 20 to < 40 hours
- 40 to < 60 hours
- >=60 hours

What racial or ethnic group do you identify with? (Select all that apply)

- Caucasian/White
- African-American/Black
- Asian
- Native Hawaiian/Pacific Islander
- Native American
- Hispanic/Latino
- Other
- Please specify: _____

What year did you complete your Surgery Residency? If you did fellowship, please cite the year you completed Residency. (Select year between 1985 and 2020, or select "I am still a resident")

What is your surgical subspecialty? (If you are in training and have not matched yet please select Resident)

- Resident
- Breast Surgery
- Cardiothoracic surgery
- Colorectal Surgery
- ENT

- General
- HPB Surgery
- MIS/Bariatric Surgery
- Neurosurgery
- Orthopedic Surgery
- Pediatric surgery
- Plastic Surgery
- Surgical Oncology
- Trauma/critical care
- Urology
- Vascular Surgery
- Transplant Surgery
- Endocrine Surgery

What is your age? _____

What is your title?

- Resident
- Fellow
- Instructor
- Assistant professor
- Associate professor
- Full professor
- Practicing surgeon in non-academic setting

What setting most describes your current practice?

- Academic
- Community/private practice
- Affiliated with academic hospital
- Military
- Other

What state do you live in? (If you have biologic children, please choose the state you lived in when you conceived your child) (Select from list of 50 states)

Personal Family Goals

Do you have children?

- Yes
- No, but I am hoping to have children at some point in my life
- No, I do not wish to have children
- No, I tried (biologic, assisted reproduction, adoption, or surrogacy) but I am not planning to try any more

How many children do you have? (Select number 1-8)

How many biological children do you have? (Select number 1-8)

Do you have the number of children you want for your family?

- Yes, I have all the children I want and had them naturally
- Yes, I have all the children I want but needed assisted reproduction, adoption, or surrogacy
- No, I have fewer than I wanted and I'm done trying. I did NOT try assisted reproduction, adoption, or surrogacy
- No, I have fewer than I wanted and I'm done trying. I DID try assisted reproduction, adoption, or surrogacy
- No, I have fewer than I want but I am still trying to have more kids
- I am unsure if I want more kids in the future

Pregnancy loss (for female participants only)

How many pregnancy losses at < 10 weeks have you experienced? (Select number 0-15)

How much time did you take off work after your pregnancy loss(es)? (Select average if more than one pregnancy loss)

- 0 days
- 1 - 7 days
- 1 - 2 weeks
- 3 - 4 weeks
- 4 weeks

I felt my colleagues were supportive of extra time off after my pregnancy loss(es).

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- I didn't tell them

I felt the leadership (PD, division chief or chair, boss, practice manager) were supportive of extra time off after my pregnancy loss(es).

- Agree
- Strongly agree
- Disagree
- Strongly disagree
- I didn't tell him or her

How many pregnancy losses between 10-20 weeks have you experienced? (select number 0-15)

Was/Were the loss(es) due to: (Check all that apply)

- Fetal Demise
- Spontaneous Labor or Rupture of Membranes
- Pregnancy Termination for fetal malformation
- Pregnancy Termination for other reason
- Other. Please specify: _____
- I don't know

How much time did you take off work after your pregnancy loss(es)?

- 0 days
- 1 - 7 days
- 1 - 2 weeks
- 3 - 4 weeks
- 4 weeks

I felt my colleagues were supportive of extra time off after my pregnancy loss(es).

- Strongly agree
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- Disagree
- Strongly disagree
- I didn't tell them

I felt the leadership (PD, division chief or chair, boss, practice manager) were supportive of extra time off after my pregnancy loss(es).

- Strongly agree
- Agree
- Disagree
- Strongly disagree

- I didn't tell him or her

Have you experienced the loss of a pregnancy or baby after 20 weeks gestation (stillbirth or neonatal demise)?

- Yes:

- How many times (Select number 1-15)
- Was/Were the loss(es) due to:
 - Fetal Demise
 - Spontaneous Labor or Rupture of Membranes
 - (Check all that apply) Pregnancy Termination for fetal malformation
 - Pregnancy Termination for other reason
 - Other
 - Please specify: _____

How much time did you take off work after your pregnancy loss(es)?

- 0 days
- 1 - 7 days
- 1 - 2 weeks
- 3 - 4 weeks
- 4 weeks

I felt my colleagues were supportive of extra time off after my pregnancy loss(es).

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- I didn't tell them

I felt the leadership (PD, division chief or chair, boss, practice manager) were supportive of extra time off after my pregnancy loss(es).

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- I didn't tell him or her

- No

Assisted Reproduction

Have you or your partner ever undergone testing for infertility?

- Yes

What was determined to be the source of infertility/what was the reason to obtain infertility consultation? (Select all that apply)

- Partner sperm issue
- Inadequate ovarian reserve
- Structural uterine or fallopian tube issue
- Recurrent pregnancy losses
- Preimplantation genetic testing/screening
- Other Please specify: _____
- Don't know

- No

Have you or your partner used assisted reproductive technologies such as medical ovarian stimulation, intrauterine insemination, in vitro fertilization, egg or embryo freezing?

- Yes

How many times were you or your partner able to have a child using assisted reproductive technologies (do not include pregnancies that ended in loss before 20 weeks' gestation)? (Select number 0-10)

What assisted reproductive technologies did you and your partner use? (Select all that apply)

- Ovarian stimulation with medications
- Intrauterine insemination

- In vitro fertilization
- Embryo freezing (may include embryos using own eggs/sperm or donor eggs/sperm)
- Egg freezing
- Donor egg

What is the number of total assisted reproductive cycles you or your partner have tried? (total attempts using ANY type of technology) _____

Estimate the number of FULL days off YOU (not your partner) took off work for all cycles

- 0 days
- 1-3 days
- 4-7 days
- 8-14 days
- 15-21 days
- >21 days
- I don't know

What was your estimated OUT-OF-POCKET expense for these cycles all together?

- 0-\$40k
- 40-< 80k
- 80-< 120k
- 120-< 160k
- 160-< 200k
- >200k
- I don't know

What stage(s) of your career were you in when you or your partner underwent assisted reproduction? (check all that apply)

- Before Residency
- Resident
- Fellow
- Junior faculty (0-3 years postgraduate)
- Early career (>3 years-7 years postgraduate)
- Mid career (>7 years-12 years postgraduate)
- Late career (>12 years postgraduate)

○ No

Can you specify the reason for this?

- Not ready yet
- Lack of a partner
- Process was too difficult or complicated
- Hoping to conceive naturally still
- Too expensive
- Work demands and time constraints
- Lack of social support
- Did not think of it
- Decided to use a surrogate
- Decided to adopt
- Not applicable (N/A)

Have you used a surrogate?

○ Yes

What is the reason you did surrogacy?

- Medical contraindication (not uterine) to pregnancy
- Uterine contraindication to pregnancy
- Unable to carry pregnancy for unknown reasons
- Other medical recommendation

- Elective (not due to medical reasons)
- Other. Please specify: _____

What was your total out of pocket expense for all surrogate gestations?

- 0 - \$40k
- 40 - < 80k
- 80 - < 120k
- 120 - < 1600k
- 160 - < 200k
- >200k

What is the duration of PAID parental leave for your child(ren) by surrogacy? (Provide average if more than one child by surrogate)

- 0 days
- 1 - 2 weeks
- 3 - 4 weeks
- 5 - 8 weeks
- 8 - 12 weeks
- > 12 weeks

What is the duration of UNPAID (total leave minus paid leave) parental leave for your child(ren) by surrogacy? (Provide average if more than one child by surrogate)

- 0 days
- 1 - 2 weeks
- 3 - 4 weeks
- 5 - 8 weeks
- 8 - 12 weeks
- > 12 weeks

- No

Have you adopted a child?

- Yes

What was your total out of pocket expense for all adoptions?

- 0 - \$40k
- 40 - < 80k
- 80 - < 120k
- 120 - < 1600k
- 160 - < 200k
- >200k

What is the duration of PAID parental leave for your adopted child(ren)? (Provide average if more than one child by adoption)

- 0 days
- 1 - 2 weeks
- 3 - 4 weeks
- 5 - 8 weeks
- 8 - 12 weeks
- > 12 weeks

What is the duration of UNPAID (total leave minus paid leave) parental leave for your adopted child(ren)? (Provide average if more than one child by adoption)

- 0 days
- 1 - 2 weeks
- 3 - 4 weeks
- 5 - 8 weeks
- 8 - 12 weeks

- > 12 weeks
- No

For each of your biologic children you will answer a set of questions.

The following questions are regarding your FIRST child: (These questions will be repeated for each child)

How old were you/your partner when your child was born? (Please provide age of the CHILDBEARING parent) _____

What stage of your career were you?

- Before Residency
- Resident
- Fellow
- Junior faculty (0-3 years postgraduate)
- Early career (>3 years-7 years postgraduate)
- Mid career (>7 years-12 years postgraduate)
- Late career (>12 years postgraduate)

During your pregnancy, on average, how many hours did you work per week? (for female participants only)

- < 40 hours
- 40 hours
- 40-60 hours
- 60-80 hours
- >80 hours

During your partner's pregnancy, on average, how many hours did she work per week? (for male participants only)

- < 40 hours
- 40 hours
- 40-60 hours
- 60-80 hours
- >80 hours

Did you reduce your work schedule (# of cases, case mix, call schedule) during your pregnancy? (for female participants only)

- Yes

At how many weeks' gestation did you reduce your schedule? _____

I felt stigma or resentment from colleagues by reducing my work/OR/call hours during pregnancy (for female participants only)

- Strongly agree
- Agree
- Disagree
- Strongly disagree

I felt guilty about burdening my colleagues by reducing my work/OR/call hours during pregnancy. (for female participants only)

- Strongly agree
- Agree
- Disagree
- Strongly disagree

- No

Why didn't you reduce your schedule? (check all that apply)

- Did not want to be considered weak by colleagues (stigma)
- Concerned about financial loss/penalty if I reduced my work schedule (e.g. loss of bonus, reduced pay, reduced RVU)
- Concerned about burdening by colleagues with extrawork (guilt)

- I would need to pay back my call (lack of redundancy in workforce)
- I wanted to, but my work could not accommodate it
- Really didn't feel like I needed to

During your pregnancy, on average, how often were you on overnight call? (defined as working 6p-6a, whether night shift, swing, or 24 hour call) (for female participants only)

- None
- 2-4/month
- 4-6x/month
- >6x/month

How many hours a week were you operating in the last trimester? (for female participants only)

- 0-< 8 hrs
- 8-< 12 hours
- 12-< 16 hours
- >16 hours

How many hours a week were you working (clinic+OR+administrative) in your last trimester? (for female participants only)

- < 30 hrs/week
- 30-40 hrs/week
- 40-60 hrs/week
- >60 hrs/week

Did you/your partner experience any of the following complications with this pregnancy? (Check all that apply)

- Preeclampsia or Hypertension
- Placental Abruption or Bleeding in Pregnancy
- Placenta Previa or Accreta
- Intrauterine Growth Restriction
- Preterm Labor or Rupture of Membranes
- Placental Insufficiency (including Oligohydramnios)
- Multiple Gestation
- Cesarean Delivery

What was the indication for cesarean delivery?

- Elective primary c-section
- Elective repeat c-section (including did not want to VBAC)
- Contraindication to labor (i.e. placenta previa, prior uterine surgery other than prior low transverse cesarean, malpresentation or breech)
- Failure to progress in labor
- Non-reassuring fetal heart tracing
- Other. Please specify: _____
- I don't know

- Postpartum Hemorrhage
- Postpartum Depression
- Hyperemesis
- Low Back Pain
- Carpal Tunnel Syndrome
- Other Musculoskeletal Pain
- Other complication. Please specify: _____
- None of the above

Did any of the pregnancy complications necessitate bedrest or time away from work?

- Yes

Approximately how much time were you/your partner on bedrest/away from work?

- 0-2 weeks
- 2-4 weeks
- 4-6 weeks

- 6-8 weeks
- >8 weeks

I felt my colleagues were supportive of extra time off

- Strongly agree
- Agree
- Disagree
- Strongly disagree

I felt my colleagues were supportive of extra time off

- Strongly agree
- Agree
- Disagree
- Strongly disagree

I felt the leadership (PD, division chief or chair, boss, practice manager) were supportive of extra time off

- Strongly agree
- Agree
- Disagree
- Strongly disagree

At the time of delivery, did you have financial loss as a result of work restrictions during pregnancy

- Yes (Please estimate the loss)
 - < \$10,000
 - \$10,001-\$25,000
 - \$25,001-\$50,000
 - \$50,001-\$75,000
 - >\$75,000
- No

- No

If you/your partner had an ANTEPARTUM complication (other than Cesarean Delivery, Postpartum Hemorrhage, Postpartum Depression), did it result in a preterm delivery before 37 weeks?

- Yes

At what gestational age (# of weeks pregnancy)? _____

- No

Did your baby require a NICU stay?

- Yes

Did you receive any extra time off because your baby was in the NICU?

- Yes

I felt my colleagues were supportive of extra time off

- Strongly agree
- Agree
- Disagree
- Strongly disagree

I felt the leadership (PD, division chief or chair, boss, practice manager) were supportive of extra time off

- Strongly agree
- Agree
- Disagree
- Strongly disagree

At the time of delivery, did you have financial loss as a result of the extra time off for your child's NICU stay (penalty or financial loss from lower RVU's, loss of bonus, direct salary reduction)?

- Yes
 - Please estimate the loss: < \$10,000
 - \$10,001-\$25,000
 - \$25,001-\$50,000

- \$50,001-\$75,000
 - >\$75,000
 - No
 - No, I stuck to my original parental leave duration plan

After the birth of this NICU baby what is the reason you did not take extra time off? (check all that apply)

 - My program director was not supportive of more time off
 - I worried my coresidents would have resented me if I took more time off
 - I worried about burdening my coresidents with more time off
 - I did not want to extend my training by taking more time off but I was offered the option to
 - I did not feel I needed extra time off
 - Other. Please specify: _____

After the birth of this NICU baby what is the reason you did not take extra time off? (check all that apply)

 - My boss/chair/leadership were not supportive of more time off
 - I worried about burdening my colleagues with more time off
 - I worried about the financial losses associated with more time off
 - I did not feel I needed the extra time off
 - Other. Please specify: _____
- No

Did this baby experience any of the following neonatal complications? (check all that apply)

- Blood Transfusion
- Congenital Anomalies
- Hypoxia requiring supplemental oxygen and monitoring
- Intraventricular Hemorrhage
- Intubation
- Meconium Aspiration
- Necrotizing Enterocolitis
- Neonatal Sepsis
- Nerve Palsy
- Pneumothorax
- Seizures
- Skeletal Fracture
- Therapeutic Hypothermia
- Other. Please specify: _____
- None of the above

Did you breastfeed this baby? (for female participants only)

- Yes.

For how long?

- 1 day - < 1 month
- 1 - < 3 months
- 3 - < 6 months
- 6 - < 12 months
- >12 months

Did you breastfeed as long as you would have liked to?

- Yes
- No

What was the main barrier to breastfeeding as long as you would have liked to? (check all that apply)

- Inadequate milk supply
- Inadequate time to express milk at work
- Inadequate lactation facilities to express milk at work

- Fatigue
- Medical contraindication

Did you want to breastfeed? (for female participants only)

- Yes
- No

Final questions

Did you delay children due to your training?

- Yes

Do you regret delaying childbearing due to your training?

- Not at all
- A little bit
- Somewhat
- Moderately so
- Extremely so

- No

How often do you feel burned out from your work?

- Never
- A few times a year
- Once a month or less
- A few times a month
- Once a week
- A few times a week
- Daily

How often do you agree with the statement: "I feel more callous toward people since I took this job"?

- Never
- A few times a year
- Once a month or less
- A few times a month
- Once a week
- A few times a week
- Daily

During the past month, have you often been bothered by feeling down, depressed, or hopeless?

- Yes
- No

During the past month, have you often been bothered by little interest or pleasure in doing things?

- Yes
- No

How would you rate your overall well-being this past week? This question refers to your physical, emotional, and spiritual state, including things like fatigue, stress, depression, anxiety, sense of meaning and purpose. (0= As bad as it can be; 10 = As good as it can be): (Select number 0-10)

What is the likelihood you will reduce your work hours devoted to clinical care (unrelated to COVID-19 pandemic) during the next 12 months?:

- None
- Slight
- Moderate
- Likely
- Definite

What is the PRIMARY reason for doing so? (for those that answer anything other than 'none' or 'slight' in above question)

- Frustration with EMR or administrative tasks
- To spend more time with family
- Declining reimbursement for care
- To pursue other leadership opportunities/administrative roles
- To pursue research or medical education
- Other reason. Please specify: _____

What is the likelihood you will leave your current practice within the next 3-5 years?

- None
- Slight
- Moderate
- Likely
- Definite

What would you do if you left your current practice?

- Look for another job but continue to work as a surgeon
- Look for another job in medicine but not as a surgeon
- Leave medicine and pursue a different career
- Stop working or retire
- Other. Please specify: _____

Would you recommend a career as a surgeon to your child?

- Yes
- No

Were you pregnant during the COVID-19 pandemic?

- Yes

At what stage of your pregnancy were you? (Select answer that most applies)

- First trimester
- Second trimester
- Third trimester but less than 37 weeks
- ≥ 37 weeks

Did you receive any special accommodations during pregnancy to keep you and your baby safe during the pandemic?

- Yes, I did not have to come to work
- Yes, I had to come to work but they changed my schedule to minimize risk
- No, I did not receive any accommodations but went into work minimally
- No, I did not receive any accommodations and worked full time

- No

Is there anything else about your experience of infertility/surrogacy/adoption/pregnancy/pregnancy complications you would like to share? _____

How did you access this survey?

- AWS provided link
- AAS provided link
- SAAS provided link
- ACS-YFA provided link
- Facebook: Surgeon Moms Group
- Facebook: Physician Moms Group
- Twitter
- Personal communication/notification
- WTS (Women in Thoracic Surgery)
- SBAS