Introduction

A combined task force from the Society for Pediatric Urology and the section of Urology of the American Academy of Pediatrics, carried out a series of manpower studies addressing questions and concerns of their members from 2006-2010. The following results are from these surveys.

Materials and Methods:

A total of four surveys were performed from 2006-2010. All questions were vetted through the appropriate committees of the participating societies. Data was accumulated in a blinded fashion to maintain anonymity. Surveys 1 and 2 performed in 2006-7 were sent to all members of the Society for Pediatric Urology actively involved in the practice of pediatric urology. These surveys focused on identifying
Concerns regarding workforce needs and evaluated the perception of inadequate fiscal reimbursement for the practice of pediatric urology. Survey 3 completed in 2008 focused on the concerns of pediatric urologists who had entered into practice between 2000-2007. Survey 4 performed by the Urology Fellows Committee in 2009-2010 was carried out to address the concerns of the current fellows.

Results:
See Publication Journal of Pediatric Urology

Survey One - Focus Manpower Needs For Pediatric Urology
A total of 136 out of 242 (56%) physicians who had self described themselves as actively practicing pediatric urologists based within the USA responded. Partial participant responses to some questions are noted where they occur.

1. What is your age:

   - >65 yrs: 19%
   - 60-65 yrs: 16%
   - 51-59 yrs: 30%
   - 41-50 yrs: 24%
   - 30-40 yrs: 11%
   - 60-65 yrs: 16%
2. Did you do a fellowship in pediatric urology and if so what was the length of your fellowship?

- 1yr: 33%
- 2yr: 47%
- 3yr: 6%
- none: 14%

3. Are you involved in urology resident/fellow training?

- actively involved in training Urology residents: 33%
- actively involved in the training Urology residents and Pediatric Urology fellows: 36%
- not involved with training Urology residents or fellows: 31%
4. What type of practice are you currently in?

- University: 55%
- Private practice with adult urologists: 21%
- Private practice with multispeciality group: 6%
- Private practice solo or with other pediatric urologists: 18%

5. What is the location of your practice based on your AUA region?

- Section Breakdown

<table>
<thead>
<tr>
<th>Section Names</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Atlantic</td>
<td>15</td>
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<tr>
<td>New England</td>
<td>10</td>
</tr>
<tr>
<td>New York</td>
<td>15</td>
</tr>
<tr>
<td>North Central</td>
<td>25</td>
</tr>
<tr>
<td>North Eastern</td>
<td>10</td>
</tr>
<tr>
<td>South Central</td>
<td>20</td>
</tr>
<tr>
<td>South East</td>
<td>20</td>
</tr>
<tr>
<td>West</td>
<td>25</td>
</tr>
</tbody>
</table>

[Graph showing the distribution of AUA sections by count]
6. Have you changed your practice location after initiating your practice in pediatric urology?

- Yes: 33%
- No: 67%

7. Number of partners practicing pediatric urology with you?

-Solo: 26%
-1 partner: 24%
-2 partners: 21%
-3 partners: 10%
-4 or more: 19%
8. Average number of hours worked per week exclusive of call?

- <40 hours: 4%
- 40-50 hours: 13%
- 51-60 hours: 34%
- 61-70 hours: 34%
- 71-80 hours: 9%
- >80 hours: 6%

9. Average number of weeks on call?

- <15 weeks: 19%
- 15-24 weeks: 38%
- 25-34 weeks: 6%
- 35-44 weeks: 6%
- 45-52 weeks: 22%
10. Average number of outpatient (clinic visits) you personally see per week?

- < 30 patients (pts): 6%
- 31-40 pts: 9%
- 31-40 pts: 27%
- 51-60 pts: 23%
- > 60 pts: 35%

11. The volume of clinic visits you personally see over the past 5 years has?
(Only answer if you have not deliberately decreased your practice patterns.)
(N=123/136 respondents)

- Increased: 53%
- Not changed: 23%
- Decreased: 10%
- Significantly increased: 11%
- Significantly decreased: 3%
12. Estimate the percentage of patients you personally see that could be evaluated/treated by a physician extender (PA or NP)?

![Pie chart showing percentages: 12% 0-10%, 9% 11-20%, 38% 21-30%, 34% 31-40%, 7% 41% or more, 12% 41% or more.]

13. Number of physician extenders (PA’s or NP’s) in your practice?

![Pie chart showing percentages: 34% 0, 13% 1, 6% 2, 4% 3, 4% 4 or more.]

14. If you have a physician extender list the average number of patients seen by one extender during a week. (78/136 respondents)

- ≤20 patients: 30%
- 21-35 pts: 30%
- 36-50 pts: 15%
- 51-65 pts: 9%
- >65 pts: 16%

15. If >20% of your patients maybe seen by a physician extender are you actively seeking one for your practice?
59 responders

- Yes: 33%
- No: 67%
16. The average number of surgical cases (patients operated) you perform per year.

- ≤200 patients: 13%
- 201-300 pts: 14%
- 301-400 pts: 26%
- 401-500 pts: 24%
- >500 pts: 23%

17. Over the past 5 years my surgical volume has?
(Only answer questions if you have not deliberately decreased your practice patterns-123/136 respondents)

- Significantly decreased: 7%
- Decreased: 18%
- Not changed: 33%
- Increased: 31%
- Significantly increased: 11%
18. Over the past 5 years the number of minor surgical cases performed has?

- Increased: 47%
- Not changed: 26%
- Decreased: 9%
- Significantly increased: 14%
- Significantly decreased: 4%

19. Over the past 5 years the number of complex cases performed has? (Complex cases are major urologic reconstructions for a congenital anomaly, traumatic injury, bladder augmentation, continent urinary diversion, extrophy closure, renal transplantation, resection of GU tumors)

- Decreased: 36%
- Not changed: 33%
- Increased: 13%
- Significantly increased: 2%
- Significantly decreased: 16%
20. I will be retiring in the next?

![Bar chart showing retirement plans (1-2 yrs, 3-5 yrs, 6-10 yrs, 11-15 yrs, >15 yrs)]

21. Will you be seeking a partner/associate in:

![Bar chart showing partner/associate seeking plans (Not in the foreseeable future, 6-10 yrs, 3-5 yrs, Need a partner now or within 2 years)]
22. The reason you are/will be seeking a partner/associate is? Respondents = 81/136

- Increased work load: 42%
- Retirement of partner: 27%
- Relocation of partner: 4%
- No increase in work load, desire to improve quality of life: 27%

23. If you are seeking a partner within the next 10 years are you pursuing someone to join you to do basic or clinical research? (respondents = 81/136)

- Yes: 21%
- No: 79%
24. Are the majority of pediatric urology patients in your area seen by a pediatric urologist?

Yes 75%
No 25%

25. Do you believe the sub specialty certification will increase the number of patients you see in your practice?

Yes 29%
No 71%
26. Do you believe the subspecialty certificate will result in an increased need for pediatric urologists?

Yes 34%
No 66%

27. What do you believe is the appropriate number of pediatric urology training programs in the USA?

≤ 10 programs 5%
11-15 programs 24%
16-20 programs 29%
21-25 programs 5%
26-30 programs 2%
28. My most pressing concern regarding the field of Pediatric Urology is?
(Numerous individuals listed 2-3 concerns, responses are paraphrased into groups)

<table>
<thead>
<tr>
<th>Concern</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate fiscal reimbursement for length of training</td>
<td>60%</td>
<td>82/136</td>
</tr>
<tr>
<td>Declining reimbursement</td>
<td>60%</td>
<td>82/136</td>
</tr>
<tr>
<td>Inability to recruit residents into our field due to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excellent job opportunity/fiscal reward in adult urology</td>
<td>46%</td>
<td>62/136</td>
</tr>
<tr>
<td>Fellowship incurs more debt/length of fellowship</td>
<td>46%</td>
<td>62/136</td>
</tr>
<tr>
<td>creates familial and financial hardship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing clinical/surgical volumes of mundane diagnosis and minor problems</td>
<td>37%</td>
<td>50/136</td>
</tr>
<tr>
<td>Make significantly less money than our adult colleagues despite extra training, why would you do this with big debt?</td>
<td>30%</td>
<td>40/136</td>
</tr>
<tr>
<td>Inadequate supervision of fellowship programs</td>
<td>15%</td>
<td>20/136</td>
</tr>
<tr>
<td>(Inadequate number of key surgical cases in some fellowship programs or poor mentoring of fellows during research year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inadequate time/ finances for clinical/basic science research and scholarly work following fellowship</td>
<td>11%</td>
<td>15/136</td>
</tr>
</tbody>
</table>
Survey 2: Focus on Reimbursement/Salary Concerns and Attraction of Residents to Pediatric Urology

A total of 132 out of 242 (54%) physicians who had self described themselves as actively practicing pediatric urologists based within the USA responded. Partial participant responses to some questions are noted where they occur.

1. What is your age?

![Age Distribution Pie Chart]

- 30-40 years: 9%
- 41-50 years: 39%
- 51-60 years: 30%
- 60-65 years: 14%
- >65 years: 8%
- 30-40 years: 9%
- 41-50 years: 39%

![Pie Chart with Age Distribution]
2. What is the location of your practice based on your AUA region?

3. Are you in practice with urologists who are practicing adult urology? If yes please go to question 4 if no go to question 5.
4. If you practice with colleagues who do adult urology do you make the same, more or less in salary than your partners.
Respondents 71/132

- Same: 73%
- More: 10%
- Less: 17%

5. Answer only if you have finished your fellowship after 2002 and interviewed for both academic and private practice opportunities, otherwise skip to question 7.

Regarding the salary in private practice compared to an academic practice, the salary was: Respondents 16

- Essentially equivalent: 3
- Private practice was > $25,000 per year more: 9
- Academic practice was > $25,000 per year more: 1
- Private practice was $10,000 - $25,000 per year more: 0
- Academic practice was $10,000 - $25,000 per year more: 1
- Private practice was < $10,000 per year more: 2
- Academic pay: < $10,000 per year more: 0
6. Did the difference in salary between academic and private practice play a integral role in your decision making on where you went to practice? Respondents 16

- Yes: 25%
- No: 75%

7. I am primarily practicing in a private or academic practice:
   129 respondents

- Private Practice, 40%
- Academic Practice, 60%
8. If you are in academics do you have an education/research day? If you are not in academics skip to question 9.

Respondents 73

- None: 62%
- 1 day per week: 28%
- 2 days per week: 6%
- 3 days per week: 4%
9. If you are a full partner (vested) and/or in private practice alone your annual salary is within the following range: 93 respondents:

- < $150,000: 3
- $151-200,000: 2
- $201-250,000: 16
- $251-300,000: 16
- $301-350,000: 21
- $351-400,000: 14
- $401-450,000: 9
- $451-500,000: 3
- $501-550,000: 5
- $551-600,000: 1
- $601-650,000: 1
- > $650,000: 2

Please list the specific amount of your salary;
73 respondents:
Median of $340,000 ranged from $135,000 to $685,000
10. My salary is based on:
Respondents 127

- Fiscal Productivity
- RVU based
- RVU and academic productivity
- Salary, Academic Rank, not RVU based
- Salary, not RVU based
- Salary with bonus based on RVU productivity
12. My employee benefits package contains:

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentage</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A self-contributory tax deferred retirement plan</td>
<td>81%</td>
<td>(107/132)</td>
</tr>
<tr>
<td>Dental insurance</td>
<td>66%</td>
<td>(88/132)</td>
</tr>
<tr>
<td>Travel (CME) Expense account</td>
<td>66%</td>
<td>(88/132)</td>
</tr>
<tr>
<td>A paid health insurance plan</td>
<td>56%</td>
<td>(74/132)</td>
</tr>
<tr>
<td>Paid accidental death and disability insurance</td>
<td>51%</td>
<td>(68/132)</td>
</tr>
<tr>
<td>A noncontributory retirement plan</td>
<td>43%</td>
<td>(57/132)</td>
</tr>
<tr>
<td>Partially compensated health insurance plan</td>
<td>39%</td>
<td>(52/132)</td>
</tr>
<tr>
<td>Medical spending account benefit</td>
<td>39%</td>
<td>(51/132)</td>
</tr>
<tr>
<td>Long-term health insurance</td>
<td>33%</td>
<td>(44/132)</td>
</tr>
<tr>
<td>Employer matched tax deferred retirement plan</td>
<td>16%</td>
<td>(21/132)</td>
</tr>
<tr>
<td>Availability of start up grants</td>
<td>16%</td>
<td>(21/132)</td>
</tr>
<tr>
<td>Dedicated, administrative/laboratory/academic time</td>
<td>14%</td>
<td>(19/132)</td>
</tr>
<tr>
<td>Tuition reimbursement for college expenses</td>
<td>10%</td>
<td>(13/132)</td>
</tr>
<tr>
<td>Compensated sabbatical leave</td>
<td>7%</td>
<td>(9/132)</td>
</tr>
</tbody>
</table>
Survey 3 Evaluation of Pediatric Urologists who entered into practice between 2000 and 2007. Survey was focused on three items: What stimulated the physicians interest in the field, ways to increase resident interest in the field, and the evaluation of the fellowship experience.
66% response (60/90)

1. List the one primary item that influenced you the most to go into pediatric urology?

   Interest in field 37% (22/60)
   Mentoring in residency 33% (20/60)
   Job availability in geographic area I desired to live in 25% (15/60)
   Lifestyle 5% (3/60)

2. In your opinion what is the most important factor that keeps a resident who states they are interested in going into pediatric urology from entering into the field.

   Cost to do fellowship without increase in compensation for extra time 26% (16/60)
   Medical school debt 22% (13/60)
   Length of fellowship 20% (12/60)
   Poor mentoring 18% (11/60)
   Lack of job availability in geographic area of interest 9% (5/60)
   Pediatric rotation in residency occurred to late 5% (3/60)

3. If you could make one suggestion to improve the interest of residents in the field of pediatric urology it would be?

   Financial help to off set cost of fellowship and decrease debt load 45% (27/60)
   Increased salary for fellowship trained physicians. 25% (15/60)
   Decrease length of fellowship 15% (9/60)
   Improve Mentorship 15% (9/60)
4. The optimal length of training for a pediatric urology fellowship is:

Optional year could include, basic science or clinical research, attaining advanced degree or extra clinical work load.

5. Did you do a research year in your fellowship.
6. Answer question 6-10 only if you did a research year: In my research year the majority of time was spent on:

- Basic science research, 74%
- Clinical research, 10%
- Clinical practice, 10%
- Obtaining an advanced degree/certificate, 6%

52 Respondents

7. Did you have adequate mentoring, (MD, PhD supervision, grant support, funding etc.) during your research year?

- Yes, 25%
- No, 75%

52 Respondents
8. Name two problems you noted or would like to see improved in the “research year”? (Note responses are grouped by content) 52 respondents

- Poor mentoring, poor fiscal support 81% (42/52)
- Program directors/ACGME (someone) needs to monitor this year 35% (18/52)
- Offer more flexibility (MSc, MPH, MBA) 35% (18/52)
- Experience so bad it should be dropped 35% (18/52)
- Excellent experience but protect us from clinical duties 15% (8/52)

9. Did the time you spent in your “research year” enhance your current clinical practice? 52 Respondents

- Yes 67%
- No 33%
10. If the answer to 9 was yes, please state how this year had a positive affect? 
35 Respondents (Comments grouped by contents)

Allowed time to study (read) about Pediatric Urology in depth 71% (25/35)
Increased my knowledge regarding scientific methodology 49% (17/35)
Enhanced my ability to interpret scientific/clinical papers
Gave me the tools to develop/write good clinical trials/scientific papers 43% (15/35)
Provided a basis (grant writing, working with PhD’s) to allow me to pursue research following fellowship 14% (5/35)

11. Do you primarily consider yourself in a private or in an academic practice? 
Respondents 52
11. List the major factor that impacted your decision on where to practice? (Answers grouped by categories) Respondents = 52

- Geography/proximity to family: 29% (15/52)
- Academic /Research opportunity: 29% (15/52)
- Liked the partners/associates (could still be mentored): 23% (12/52)
- Financial considerations: 15% (8/52)
- Practice provided the lifestyle I was looking for: 4% (2/52)

If you finished your fellowship and started practice in 2004 or later please complete the reminder of the survey.

12. My salary (including moonlighting) during my fellowship was:
   Respondents 22

<table>
<thead>
<tr>
<th>Salary Range</th>
<th>Number</th>
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<tr>
<td>&gt; $75,000</td>
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</tr>
<tr>
<td>$66-70,000</td>
<td>2</td>
</tr>
<tr>
<td>$61-65,000</td>
<td>4</td>
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<tr>
<td>$56-60,000</td>
<td>9</td>
</tr>
<tr>
<td>$51-55,000</td>
<td>5</td>
</tr>
<tr>
<td>&lt; $50,000</td>
<td>1</td>
</tr>
</tbody>
</table>
12. The amount of your school loan debt upon completing your fellowship.

Respondents 22

- None: 28%
- $< 50,000: 27%
- $50,001-$100,000: 9%
- $100,001-$150,000: 18%
- $150,001-$200,000: 9%
- $> 200,000: 9%

13. Are you married to a physician? (If yes please answer question 14)

Respondents = 22

- Yes: 18%
- No: 82%
14. The school loan debt for your physician spouse is:
   Respondents = 4

[Chart showing distribution of responses: Less 25%, Equal to mine 50%, More 25%]

15. Your starting salary was within the range of:
   Respondents = 22

[Bar chart showing salary ranges and corresponding counts]

My starting salary was:
   Respondents 18
   Median starting salary $220,000, range $120,000 to $350,000
16. I can reach my full salary potential (become a full partner) in?

Respondents 18

<table>
<thead>
<tr>
<th>Time</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>≥ 4 yrs</td>
<td>28%</td>
</tr>
<tr>
<td>1 yr</td>
<td>22%</td>
</tr>
<tr>
<td>2 yrs</td>
<td>22%</td>
</tr>
<tr>
<td>3 yrs</td>
<td>28%</td>
</tr>
</tbody>
</table>

17. As a young pediatric urologist what one single item would you most like to change regarding the practice of pediatric urology?

A. Reduce the length of training 44% (8/18)
   Length of training, not realistic for debt load and strain on family
   Increased training does result in increased salary

B. Mentoring 27% (5/18)
   Inadequate mentoring of fellows in research year

C. Better Racial/Sexual diversity of the physicians in the field 17% (3/18)

D. Improve available funds for pediatric research 6% (1/18)

E. Establishment of specialty centers for excellence 6% (1/18)
18. In your residency or fellowship did you personally know an individual who was interested in pursuing pediatric urology as a career and did not do so do to financial concerns, (educational debt load)?

- Yes: 44%
- No: 56%

19. If you could not have gone into pediatric urology would you have pursued another subspecialty to pursue academics or go into the private practice in general urology?

- Subspeciality (academic practice): 60%
- General Urology (private practice): 40%
Survey Four: Current fellows in training in 2010; A total of 47/47 (100%) of fellows responded.

1. How did the length of training for pediatric urology influence your decision to enter into the field?

2. How much did earning potential influence your decision to enter into the field?
3. How much did the lifestyle of practicing pediatric urology influence your decision to enter into the field?

- Very positive influence: 57%
- Positive influence: 41%
- Not a factor: 2%
- Negative influence: 0%
- Very negative influence: 0%

4. How much did the personality type of individual who practices pediatric urology influence your decision to enter into the field?

- Very positive influence: 33%
- Positive influence: 41%
- Not a factor: 19%
- Negative influence: 7%
- Very negative influence: 0%
5. How much did your interest in treating pediatric patients and their pathology influence your decision to enter into the field.

- Positive influence: 60%
- Very positive influence: 24%
- Not a factor: 2%
- Negative influence: 0%
- Very negative influence: 0%

6. How much interest did pursuing a academic practice influence your decision into entering into the field?

- Positive influence: 45%
- Very positive influence: 24%
- Not a factor: 31%
- Negative influence: 0%
- Very negative influence: 0%
7. How much did the job availability (job market) for pediatric urology influence your decision to enter into the field?

- Positive influence: 51%
- Not a factor: 32%
- Very positive influence: 15%
- Negative influence: 2%
- Very negative influence: 0%

8. During your fellowship interview did your faculty describe your research year to you?

- Yes: 87%
- No: 13%
9. Did your actual experience match the faculties description, if not please list why? N=34/47 (72%) respondents

Yes 82%
No 18%

Answers paraphrased and grouped
“Almost no protected time” “constant clinical encroachment” 3 respondents
No (almost no) mentorship 3 respondents

10. When did you or will you do your research year, before or after your clinical year.
11. How much protected time did you have in your research year?

- No clinical responsibilities, 39%
- 50% protected research, 50% clinical responsibilities, 15%
- More than 50% research, protected time, 37%
- More than 50% clinical responsibilities, 7%
- 100% clinical responsibilities, 2%

12. If you did your research year after your clinical year, did you have clinical responsibilities during your research year and if so what were they? 25 respondents

- Primary call 56% (14/25)
- Back up call 36% (9/25)
- Autonomous clinical and operative service 56% (14/25)
- Saw and operated on faculty patients 44% (11/25)
- Had independent admitting privileges 48% (12/25)
- Had a faculty appointment 44% (11/25)
13. Did you have adequate mentoring during your research year?

- Yes: 80%
- No: 20%

14. What kind of research did you do during your research year?

- Primary basic science, 40%
- Primary clinical research, 30%
- Mixture of basic science and clinical research, 30%
- 14% earned an advanced degree or certificate
15. How was your research year funded?

- Funding? What funding? 7%
- Grants or awards won by you 14%
- Grants or awards won by your mentors 19%
- Billing revenue from your clinical duties 10%
- Departmental support 50%

16. Did you publish a peer review article, non-peer reviewed article, book chapter or present at a national or international meeting during your fellowship?

- Peer reviewed manuscript 79% (34/43)
- Authored or co-authored book chapter 67% (29/43)
- Non-peer reviewed manuscript 33% (14/43)
- Presented at a national meeting 81% (35/43)
17. Do you agree or disagree with the statement my research year was a valuable experience to me.

- Strongly agree: 36%
- Agree: 32%
- Neutral: 16%
- Disagree: 11%
- Strongly disagree: 5%

18. Do you agree or disagree with the statement my research year taught me useful skills.

- Strongly agree: 36%
- Agree: 34%
- Neutral: 11%
- Disagree: 16%
- Strongly disagree: 3%
19. Do you agree or disagree with the statement my research year was a painful (frustrating) experience.

- Strongly agree: 8%
- Agree: 21%
- Neutral: 26%
- Disagree: 24%
- Strongly disagree: 21%

20. What kind of job do you intend to pursue immediately upon finishing your fellowship?

- Academic, primarily clinical: 8%
- Academic, primarily research: 13%
- Private practice, primarily clinical: 64%
- Private practice, (Adjunct faculty appointment): 15%
21. In your opinion the optimum length for a pediatric urology fellowship is:

- One year, 61%
- Two or more years, 39%

22. What is your level of total educational debt?

- None, 30%
- $100,001-$150,000, 13%
- $150,001-$200,000, 13%
- >$200,000, 13%
- ≤ $50,000, 13%
- $50,001-$100,000, 18%
- None, 30%
23. If you could do it over again would you still have chosen to do a pediatric urology fellowship?

If no why not? Comments (Paraphrased)
1. The severe financial strain, along with the emotional strain on my family has been incredibly painful.
2. Very painful two years of my life, with everything I have experienced, I would choose not to do it again.
3. The extra expertise gained does not justify the time spent.