

# Tips for Writing a Successful T32 Application

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## Learning Objectives

Attendees will learn:

- **Why T32?**
  - Benefits to the department and specialty
- **What are the minimum requirements?**
  - Essential components within department and institution
  - Qualifications of program directors and mentors
  - Trainee pool
- **Practical aspects of putting everything together**
  - To-do list breakdown
  - Required forms and an effective way to compile them
- **How to communicate effectively with potential reviewers**
  - Understanding review criteria
  - Advertise your program effectively

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## Academic Anesthesiology

Patient Care  
Research  
Education

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## Academic Missions

- Educate next generation of physician scientists
- Advance new frontiers beyond the confines of traditional anesthesia provision
- Lead future intellectual and scientific pursuits
- Bridge new research discoveries to improving perioperative patient care

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## What is a T32?

- a.k.a. Ruth L. Kirschstein National Research Service Award (NRSA)
- a.k.a. Institutional Research Training Grant
- Peer-reviewed research training
- Designed for physician scientists (residency+)
- Postdoctoral trainees (PhD or MD/PhD) interested in an anesthesiology-related career path

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## 16 Anesthesiology T32s in US

Columbia (Yr 26; \$267K)	UCSF (Yr 22; \$265K)
Duke (Yr 23; \$288K)	U. of Michigan (Yr 05; \$157K)
Johns Hopkins (Yr 13; \$408K)	U. of Pennsylvania (Yr 04; \$298K)
Harvard (Yr 41; \$597K)	U. of Pittsburgh (Yr 12, \$232K)
Med College of Wisconsin (Yr 09; \$194K)	U. of Washington (Yr 10; \$225K)
Stanford (Yr 09; \$297K)	Vanderbilt (Yr 06; \$280K)
SUNY, Buffalo (Yr 07; \$201K)	Wash U. (Yr 05; \$268K)
UCSD (Yr 02; \$133K)	Yale (Yr 10; \$199K)

The longest running T32 program in anesthesiology: 41 years

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## Potential for Future Growth?

- How about other anesthesia departments?
- How many T32s are ideal for our specialty?
- Compared to other medical disciplines:
  - Dept. of Medicine at UCSF alone: **15 T32s**
  - Dept. of Psychiatry at Columbia: **8 T32s**
  - Dept. of Psychiatry at U Pittsburgh: **7 T32s**

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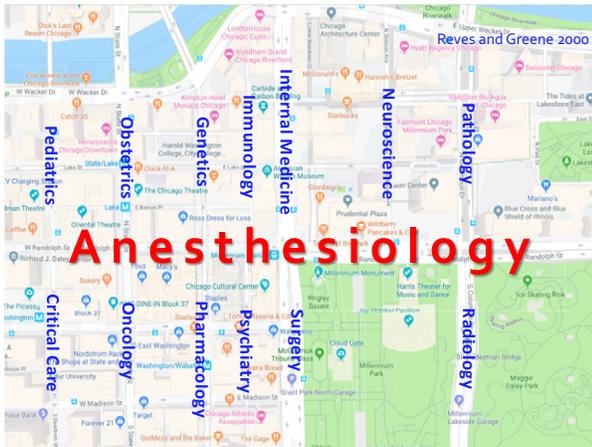
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## Challenges in Academic Medicine

- Reduced clinical volumes & reimbursements
- Shrinking operating margins for education and research
- Declining NIH buying power
- Too many are competing for too few grants
- Low T32-to-R01 transition rate

Source: beckershospitalreview.com

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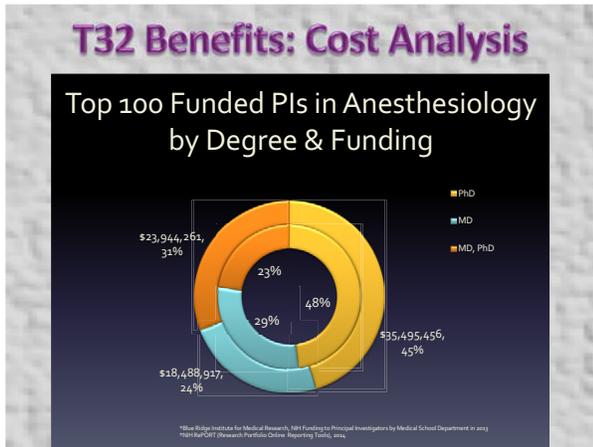
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### T32 Benefits: Cost Analysis

#### Grants vs. Clinical Revenue

- Research (The Best Scenarios from Top 100):
  - PhDs: \$739,489/FTE
  - MDs in research: \$637,549/FTE
  - MD/PhDs in research: \$772,396/FTE
- Clinical
  - Tremper 75%tile: \$493,280/FTE
  - "Best" after CRNA: \$495,585/CFTE

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### T32: Minimum Requirements

- Senior research leaders
- Academic environment within institution
- Dept. infrastructure supportive of resident research
- Effective recruitment strategies and strong trainee pool
- Chair's commitment to research excellence

Administrative Structure of Research Training in Anesthesiology and Pain Medicine

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## Sections in T32 Applications

- **Background**
  - Rationale
  - Relevant institution/department history
  - Relationship to other training activities
- **Program Plan**
  - Administration structure and program director(s)
  - Training faculty
    - One paragraph for each faculty mentor's research interest & project(s)
    - Interaction among faculty members
  - Proposed training
    - Number of slots and duration of training
    - Training methods and summary of coursework
    - Research ethics and required training modules
  - Institutional training environment and resources

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## Sections in T32 Applications (cont'd)

- **Program Evaluation**
  - Advisory and evaluation structure
  - Career development plan and milestones
  - Self and progress assessment tools (note: appendices are not allowed)
  - External advisors
- **Recruitment and Retention to Enhance Diversity**
  - University policy on diversity (URM, gender, and disabilities)
  - Disability resources and services
  - Proposed recruitment strategies and candidate pool
  - Retention strategies and career building pathways
- **Instruction in Responsible Conduct of Research**
  - RCR requirements and monitoring
  - Faculty participation
  - Duration and frequency
- **Trainees' Achievements**

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## 7 Required Data Tables

- **Table 1. Participating Departments & Programs**
  - Insight into training environment
  - Critical mass of trainees and faculty
- **Table 2. Participating Faculty**
  - Junior vs. senior composition; research areas; department affiliation
  - Past training experience and records
- **Table 3. Other Training-Related Support to Faculty**
  - Assessing interaction and overlaps, as well as institutional environment
- **Table 4. Research Support to Faculty**
  - Evidence of research strength
  - Availability of funds to support trainees' research
  - Appropriateness of faculty to serve as advisors

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## Required Data Tables (cont'd)

- **Table 5B. Publications of Those in Training**
    - Indicator of trainees' productivity
    - Research quality and authorship priority of trainees
  - **Table 6B. Applicants and Entrants for Past Five Years**
    - Characteristics of the applicants
    - Assessing admission process and competitiveness
  - **Table 8C. Program Outcomes**
    - Provide information on effectiveness of the training program
- NIH table templates (rationale & detailed instructions) are available on SAAAPM website.

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## Advertisement: Getting & Keeping Reviewers' Attention

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## Communicating with Reviewers: Overall Impact Score

- How will your program exert a sustained, powerful influence on the field
- Likelihood that program will prepare individuals for successful, productive scientific research careers

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## Clearly Address 5 Review Criteria

- **Training program and environment**
  - How different from other programs; focus areas and relevance to anesthesiology
  - Institutional commitment and resources
- **Program director(s) and PI(s)**
  - Scientific expertise and administrative/leadership/training experience
  - PD/PI effort commitment; justification for multiple PDs
- **Preceptors or mentors**
  - Multidisciplinary; MDs & PhDs; basic & clinical; strong training record
- **Trainees or candidates/scholars**
  - Competitive pools; selection criteria; recruitment strategies; resident research
- **Training record**
  - Trainee productivity; rigorous evaluation for quality and effectiveness
  - Milestones and career plans; feedbacks from trainees

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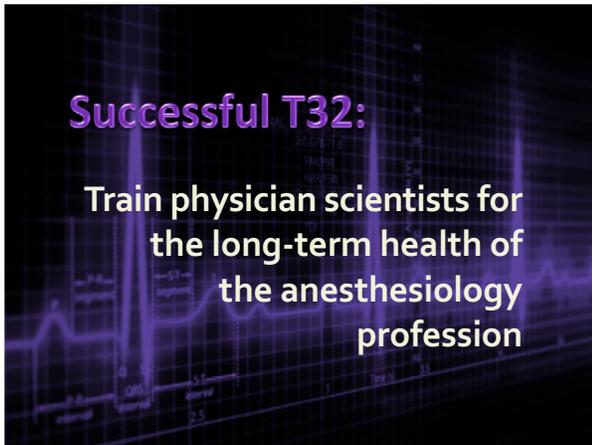
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