# Physician Market Definition: Joint FTC-DOJ Hearings on Health Care Competition

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# Product Market Definition Issues: Specialties

**To what extent do different specialties compete?**

- Examples
  - Family practice and obstetrics or pediatrics
  - Neurosurgery and orthopedic surgery
  - Interventional radiology and cardiology
- Relevant questions
  - Urban vs rural geographic area
    - Specialists often reluctant to locate to area with low population density
    - Rural population (patients) more tolerant of generalists
  - Local practice patterns
- Evidence
  - Views of managed care in constructing physician panels
  - Referral patterns
  - Hospital and health plan board certification requirements
  - Variation in payment rates



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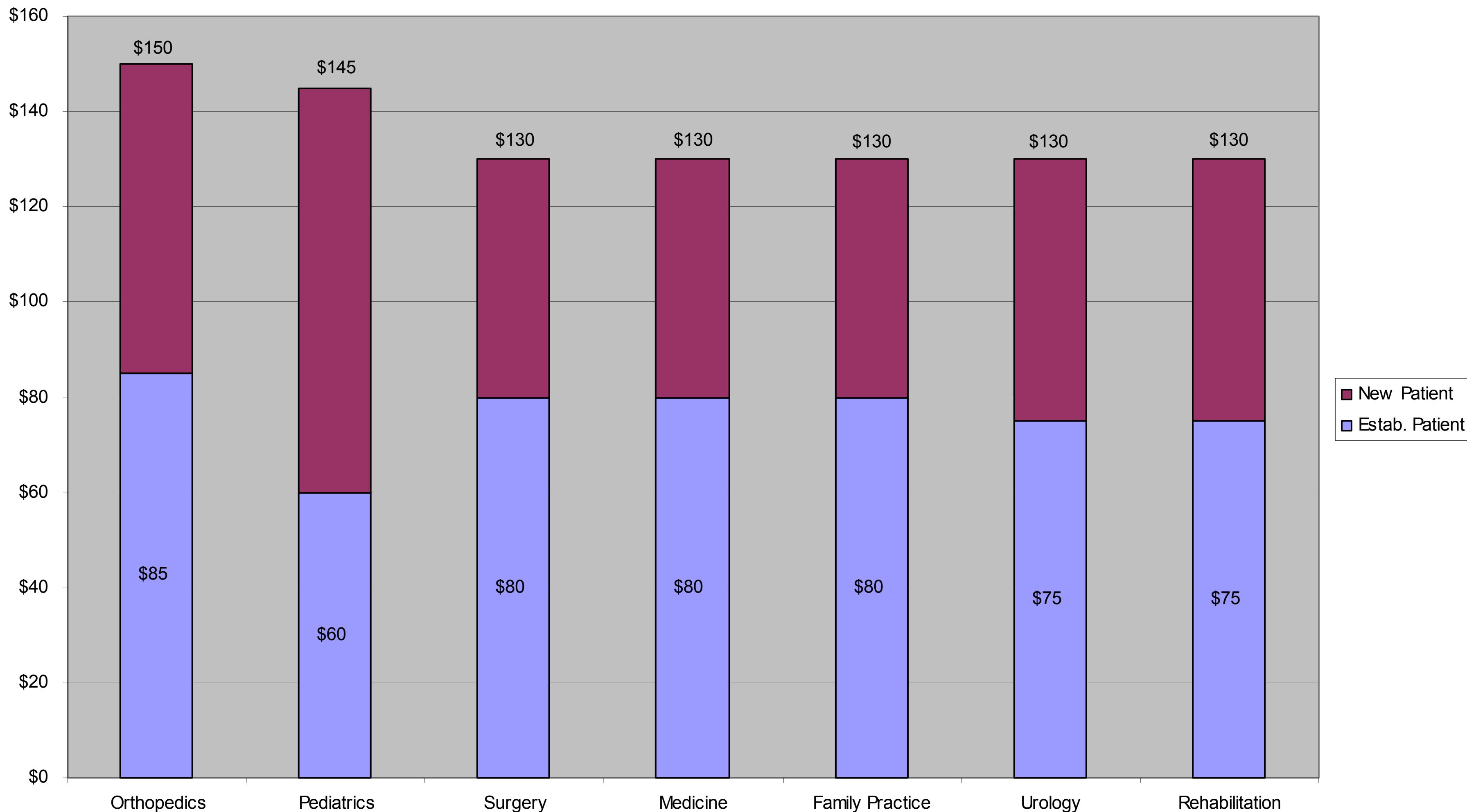
# Variation in Office Visit Fees across Specialties: Single Group Practice Example



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# Product Market Definition Issues: Allied Health Professionals

**Are physicians and associated allied health professions complements or substitutes?**

- Examples
  - Anesthesiologists and certified registered nurse anesthetists (CRNAs)
  - Obstetricians and midwives
  - Ophthalmologists and optometrists
  - Orthopedic surgeons and chiropractors
  - Primary care physicians and nurse practitioners
- Relevant questions regarding allied health professionals
  - Regulatory restrictions on scope of practice
    - Pharmaceutical prescribing authority
    - Supervision requirements
  - Insurance coverage
- May compete with physicians for subset of physician service mix and complement on rest

# Product Market Definition Issues: Allied Health Professionals

- Evidence
  - Practice patterns
    - Collaborative relationship between physicians and AHPs suggests complementarity, e.g.
      - “Comanagement” of eye surgery patients
      - Employment of CRNAs by anesthesiologists
    - Fact: MD is seen in 96% of office visits (NAMCS) suggests that NPs do not often completely substitute for physicians
    - Attempts by AHPs to obtain hospital privileges and concomitant efforts by physicians to prevent such access suggests substitutability
    - Physician and patient acceptance of AHPs varies regionally
  - Market experience
    - Managed care views
    - Evidence of price competition
      - Different price levels not necessarily instructive



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# Geographic Market Definition Issues: Short-Run

- Definition: Existing supply of physicians in an area is fixed
- Extent of market largely depends on patient willingness to travel
  - Patients often more willing to travel for tertiary services
    - Similar to hospital care
  - Rural patients travel further than urban patients
- Physician willingness to travel is also relevant
  - Willingness to admit to multiple hospitals
  - Provision of occasional services may allow more extended travel
    - e.g. medical direction to dialysis clinic
- Few data exist to test these propositions

# Geographic Market Definition Issues: Long Run

- Question is whether physicians will move to a geographic area if physician incomes start to rise from anticompetitive behavior
- Substantial systematic physician income disparity exists across regions
  - – Research on physician location decisions suggests multiple non-financial factors affect physician geographic choices
  - – Implication: physician recruitment may vary in difficulty across geographies
    - Urban/rural
      - Willingness of specialists to locate in less populated area depends on perception of available referral base
    - Region: MD incomes substantially lower in both coastal regions than in rest of country because more physicians prefer coastal locations



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# Long Run Determinants of Physician Supply

**Market forces do work: Anesthesiology provides good example**

- March 17, 1995: Front page Wall Street Journal Story Headline:

  *Numb and Number: Once a Hot Specialty, Anesthesiology Cools as Insurers Scale Back*

  – Description of current job shortage for anesthesiologists attributable to decline in surgical procedures and projected further decline as managed care forced substitution of cheaper CRNAs

- Subsequent dramatic decline in number of anesthesiologists entering residency programs
- Today: general perception that excess demand for anesthesiologists exists
- Income pattern over time shows market equilibration



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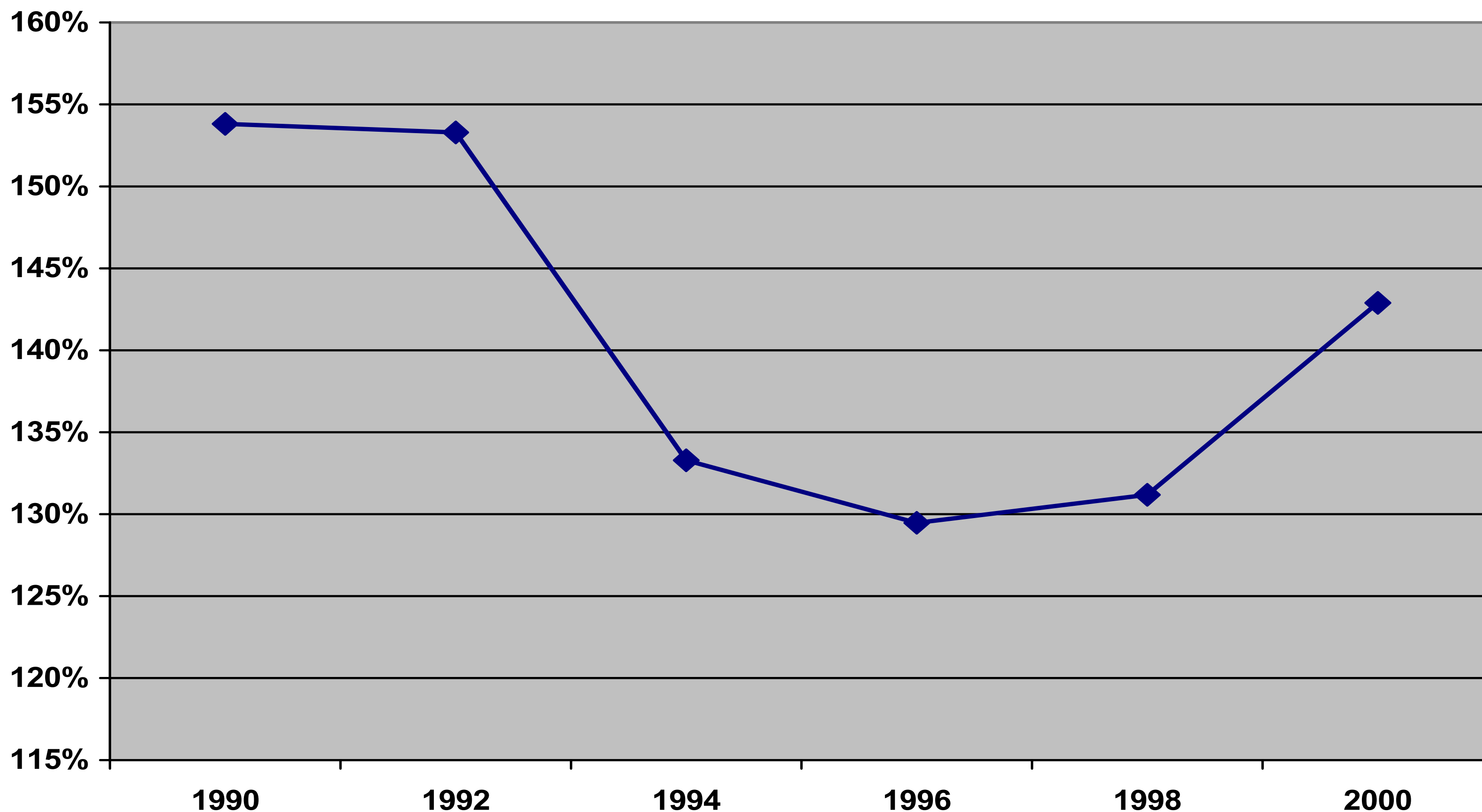
# Trend in Anesthesiologists’ Income (as percentage of all MDs) Shows Market at Work




**Sources: AMA Socioeconomic Characteristics of Medical Practice, 1997; AMA Physician Marketplace Statistics, 1997/1998; AMA Physician Socioeconomic Statistics 2000-2002 and 2003 Editions. Median income data.**



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# Analysis of Physician Fee Data: Issues

## Discreteness of billing unit

- Standardization: Physicians bill using at least 7,000 “CPT” codes
  - Standardizing by Relative Value Units (RVUs) can help
- Many codes have multiple fees associated with them
  - Professional vs global fees based on setting
  - Modifiers on many surgical services

## Billing/claims data not complete or “clean”

- Useful information often missing, e.g. physician specialty
- Unique physician identification numbers (UPINs) facilitate linking claims for single physician but difficult to identify members of same group
- Adjustments to initial claim submissions may be difficult to interpret

# Sources of Physician Fee Data

## Managed care plan data analyses

- Temporal: Has particular specialty or group can raised price substantially in short period of time?
- Geographic: Can MCO compare physician payments across areas?
  - Must still factor in variation in physician location preferences

## Benchmarks (Publicly available)

- Medicare RBRVS
  - Geographic adjustment reflects practice cost differences
  - Likely not reflective of competitive equilibrium
- Medicode (Ingenix)
  - Percentiles of charges and “allowed indemnity” rates
  - Available for any zip code and CPT combination



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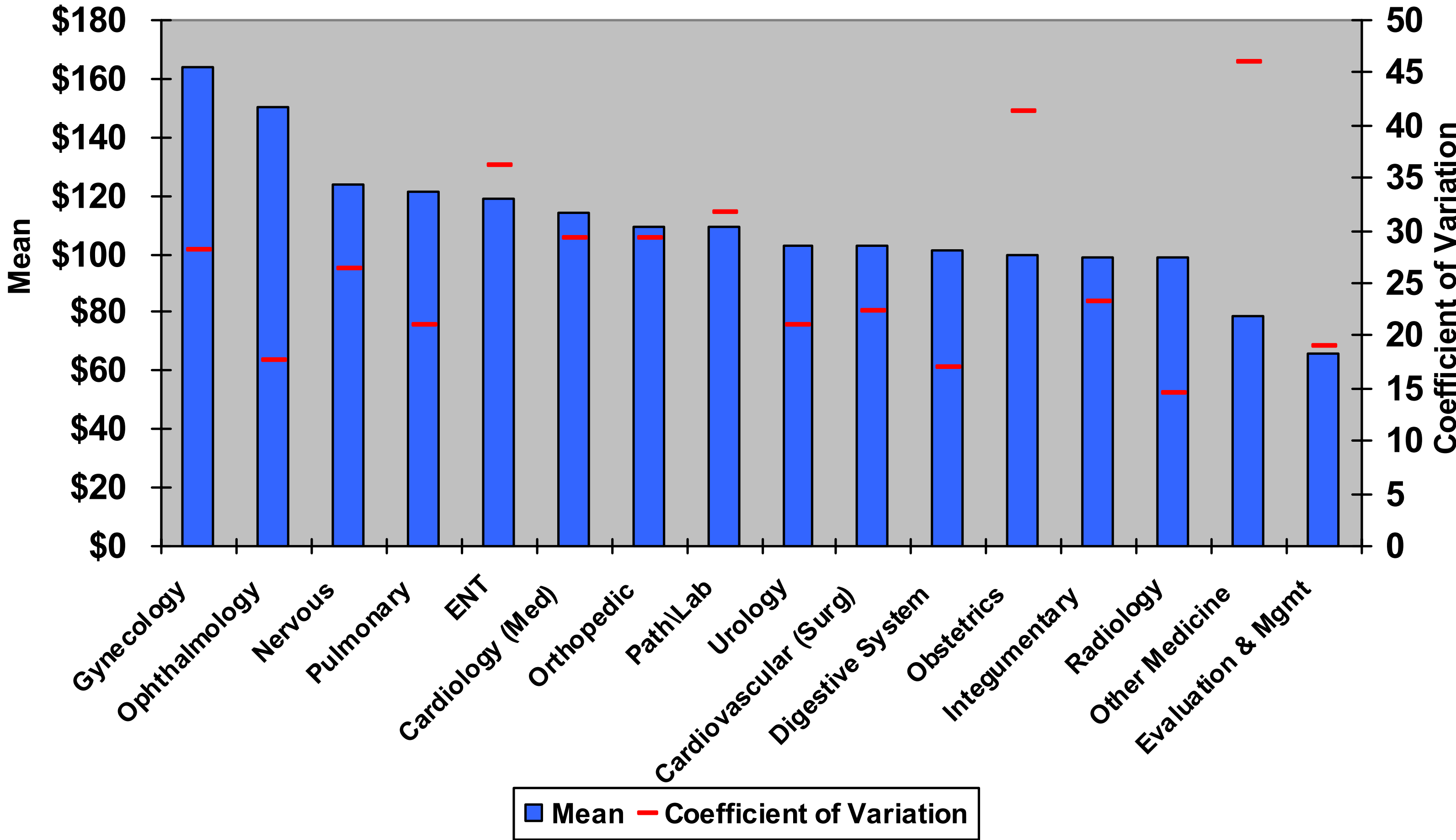
# Charges Per RVU – By CPT Grouping
# Large Physician Group



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# Comparison of Median Charge/RVU and Percentile Ratios By CPT Code Grouping: Large MD Group vs. MediCode

$200
$180
$160
$140
$120
$100
$80
$60
$40
$20
$0

120%
100%
80%
60%
40%
20%
0%

Percent

Cardiology (Med)
Cardiovascular (Surg)
Digestive System
ENT
Endocrine
Evaluation & Mgmt
Gynecology
Integumentary
Lymphatic
Nervous
Obstetrics
Ophthalmology
Orthopedic
Other Medicine
PathLab
Pulmonary
Radiology
Urology

Average Large Physician Group Median Charge/RVU Ratio
Average Medicode Median Charge/RVU Ratio
Average Large Physician Group p75/p50 Ratio
Average Large Physician Group p95/p50 Ratio
Average Medicode p75/p50 Ratio
Average Medicode p95/p50 Ratio