

STATE OF MEDICAL EDUCATION



MARSHALL UNIVERSITY
Joan C. Edwards School of Medicine



MarshallHealth[™]

Topics

- **Admissions**
 - **Current Students**
- **Office of Medical Education**
 - **Curriculum**
 - **Outcomes**
- **Student Affairs**
- **Office of Academic Support**



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Admissions

- **High Schools 2015-2016**
 - 3,491 students in 30 schools in 16 counties
 - Targeting underserved, females, and minorities
 - Pre- and post-testing indicate over a 75% increase in health care awareness and knowledge
- **Colleges**
 - Focused on in-state students
 - MOU with Hampton University
- **Summer Academy**
 - Participants are primarily from West Virginia universities/colleges and can range from freshmen to seniors
 - 14% of total participants accepted to the Joan C. Edwards School of Medicine
 - 22% of total participants accepted to West Virginia medical schools



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Admissions

- **Accelerated BS/MD Program**
 - **ACT of 30 with Math of 27**
 - **2015-2016 42 applicants, 33 were selected for interviews, of which 22 were female, 7 applicants had participated in pipeline programs**
 - **Current year selection of candidates in process.**



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Admissions

- **Accelerated BS/MD Program**
 - The Multi-Mini-Interview process which was piloted last year, was well received by interviewers and applicants. This method for interviewing applicants will continue.
 - The MMI is a short, structured interview to assess non-cognitive qualities:

Cultural Sensitivity

Teamwork

Reliability

Maturity

Empathy

Communication Skills



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Current Students

	2016	2015	2014	2013	2012	2011	2010	2009	2008
Overall GPA	3.6	3.5	3.6	3.6	3.5	3.5	3.5	3.5	3.5
Science GPA	3.4	3.4	3.5	3.5	3.4	3.4	3.4	3.4	3.4
Average MCAT	28.8	28.5	28.5	27.9	29.1	29.3	29.1	27.2	26.9
Gender of Entering Class									
Males	50	50	46	44	46	49	47	40	35
Females	33	26	33	31	20	22	28	34	43

For 2016 – 1782 applicants, 206 are WV Residents, 86 are female, and we interviewed 153 of them

For 2017 – 1980 applicants; 160 are WV Residents; 77 are female; and we will interview 90 total WV applicants

Current Students

n = 305

LOA = 9

Entering Class	2016	2015	2014	2013	2012	2011	2010
	N = 83	N=75	N=79	N=75	N=66	N=71	N=75
Underrepresented Minorities in Medicine	6% (5)	11% (8)	7% (5)	12% (9)	6% (4)	3% (2)	5% (4)
All Minorities*	18% (15)	20% (15)	17% (13)	28% (21)	11% (7)	11% (8)	19% (14)
Females	40% (33)	31% (23)	42% (33)	41% (31)	30% (20)	31% (22)	37% (28)
From Appalachia Counties	93% (76)	77% (58)	80% (63)	79% (59)	59% (39)	68% (48)	73% (55)
Rural Hometowns - WV Residents Only	36% (26 of 73 Res.)	35% (16 of 46 Res.)	35% (21 of 61 Res.)	36% (19 of 53 Res.)	31% (9 of 29 Res.)	38% (15 of 40 Res.)	42% (20 of 48 Res.)



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Office of Medical Education



Pre-Clinical Schedule

FIRST YEAR COURSES					
MDC 710 Elements of Medicine	MDC 711 Structure and Function I	MDC 712 Structure and Function II	MDC 713 Structure and Function III	MDC 714 Structure and Function IV	SUMMER
Molecular Basis of Medicine, Basic Tissue Types, Intro to Hematology	Musculoskeletal, Integument, Spinal Cord and Peripheral Nerves	Head and Neck, Brain and Behavior	Cardiovascular, Respiratory and Renal Systems	Gastrointestinal, Endocrine and Reproductive Systems	Electives Available
IDM 715 - Introduction To Clinical Skills					

SECOND YEAR COURSES					
Students must pass the USMLE Step One to be promoted to Year 3					
MDC 750 Principals of Disease	MDC 751 Disease & Therapeutics I	MDC 752 Disease & Therapeutics II	MDC 753 Disease & Therapeutics III	MDC 754 Disease & Therapeutics IV	SUMMER
Core Concepts, Infectious Disease, Antimicrobials, Neoplasia, Immunology	Musculoskeletal, Dermatology and Hematology Systems	Nervous System, Eye and Psychopathology	Cardiovascular, Respiratory and Renal Systems, ENT	Gastrointestinal, Endocrine and Reproductive Systems, Toxicology	Prepare for USMLE Step One
MED 755 - Advanced Clinical Skills					



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Clinical Curriculum

THIRD YEAR COURSES

Students must pass the MUJCESOM Clinical Competency Examination to be promoted to Year 4
 *During third and fourth years students are required to complete the established list of Procedures and Patient Encounters.

8 WEEKS	8 WEEKS	8 WEEKS	8 WEEKS	4 WEEKS	4 WEEKS	8 WEEKS
Family Practice Clerkship	Internal Medicine Clerkship	Obstetrics/ Gynecology Clerkship	Pediatrics Clerkship	Psychiatry Clerkship	Neurology Clerkship	Surgery Clerkship

FOURTH YEAR COURSES

Students must pass the USLME Step Two Clinical Skills and Clinical Knowledge Examinations, and Year 4 Radiology Exam. *During third and fourth years students are required to complete the established list of Procedures and Patient Encounters.

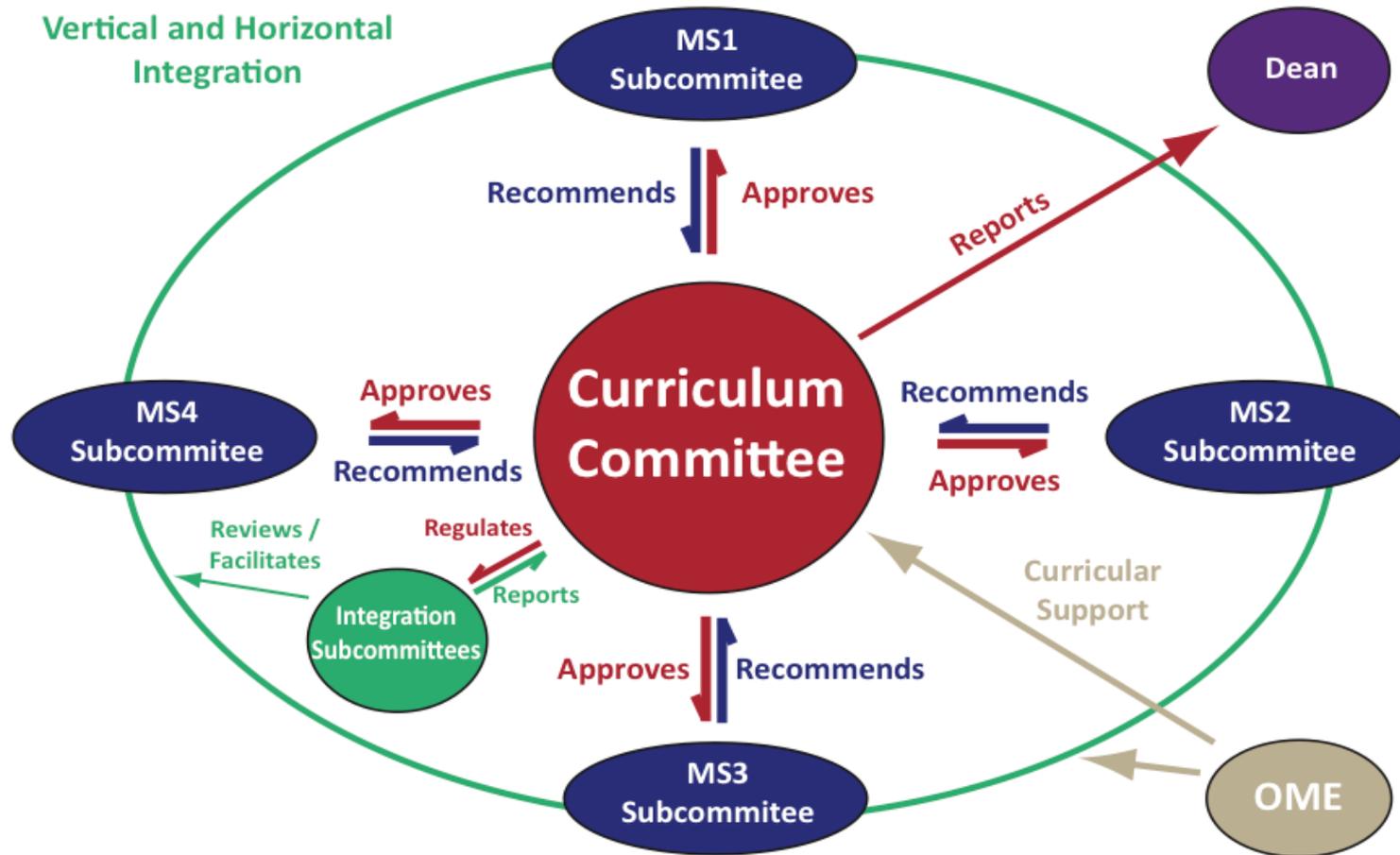
2 WEEKS	4 WEEKS	2 WEEKS	28 WEEKS
Required Emergency Medicine	Selective Sub-Internship Choose 1 of 7 options: Family Med; Internal Med; Obstetrics; Orthopaedics; Pediatrics; Psychiatry; Surgery	Selective ICU Choose 1 of 4 options: Medical, Neonatal, Pediatric, Surgical	Electives



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Integration

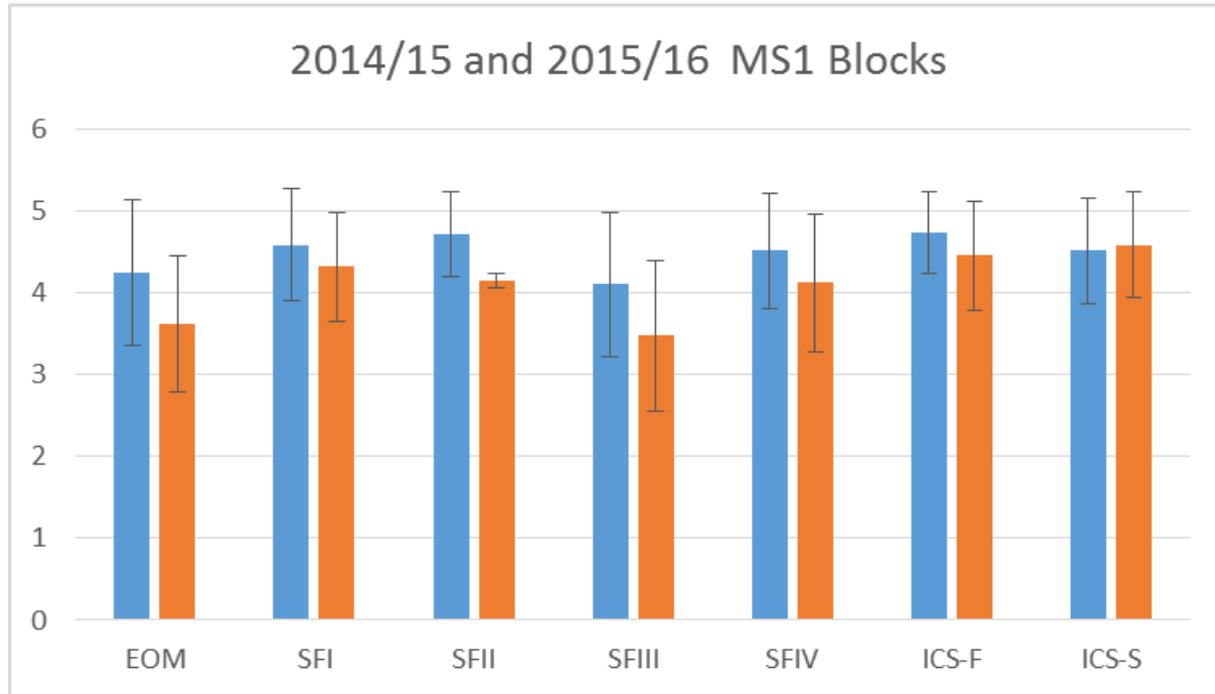


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Pre-Clinical Outcomes

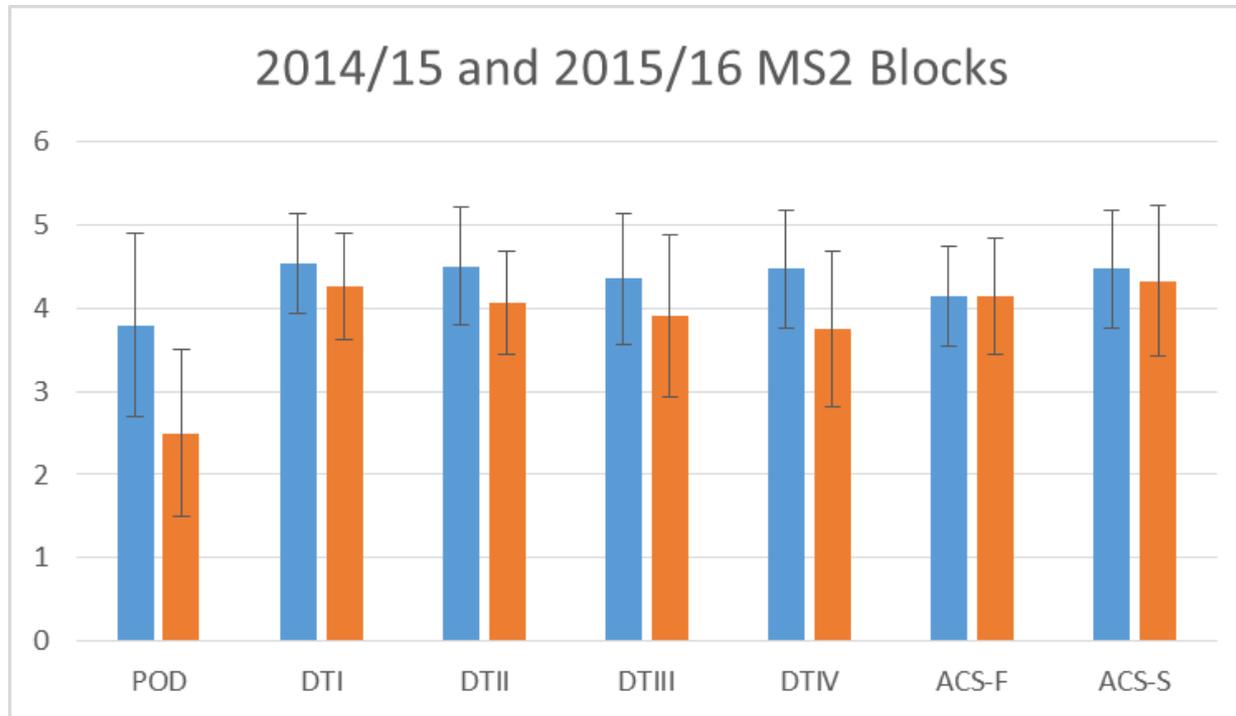
Student Satisfaction



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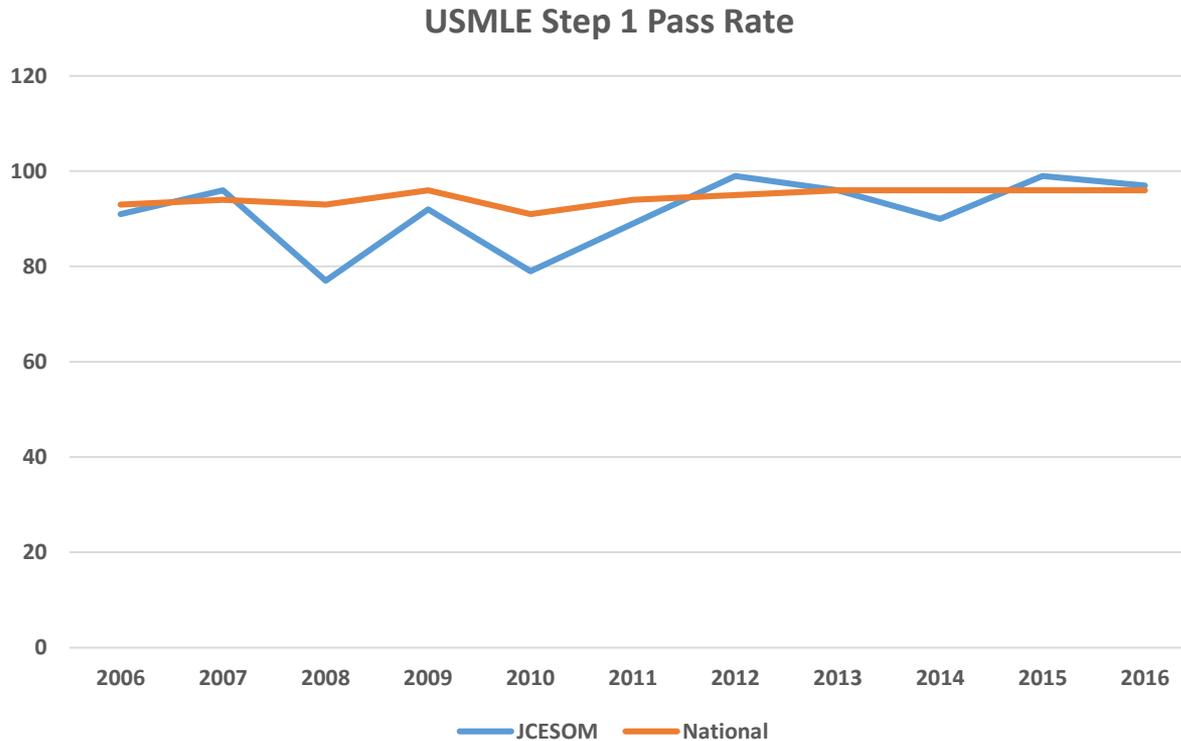
Student Satisfaction



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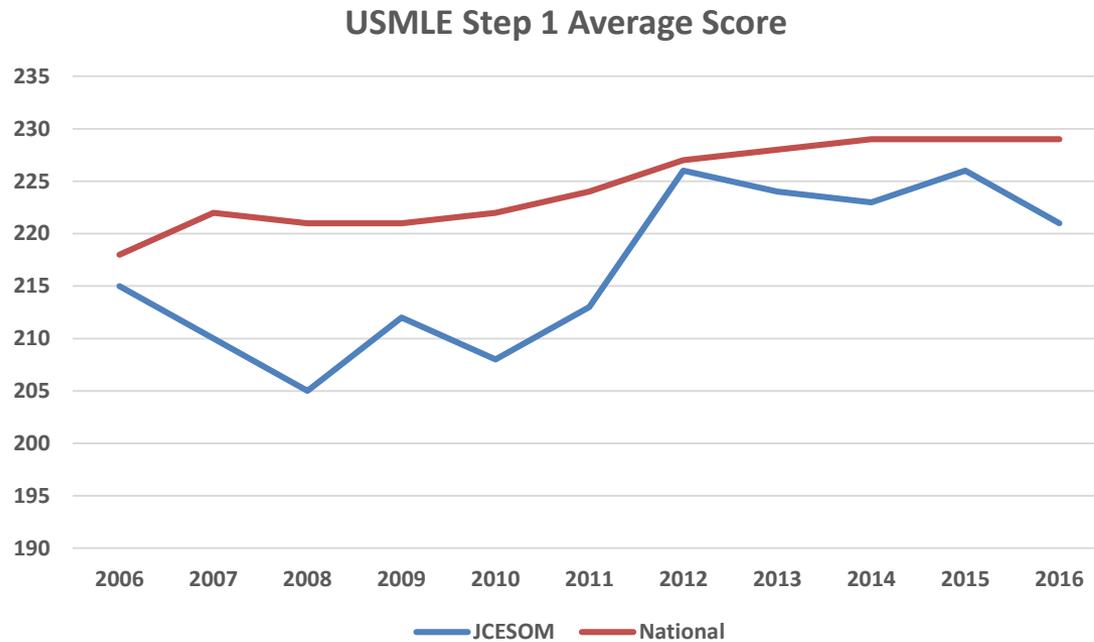
USMLE Step 1 Pass Rate



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USMLE Step 1 Average Score

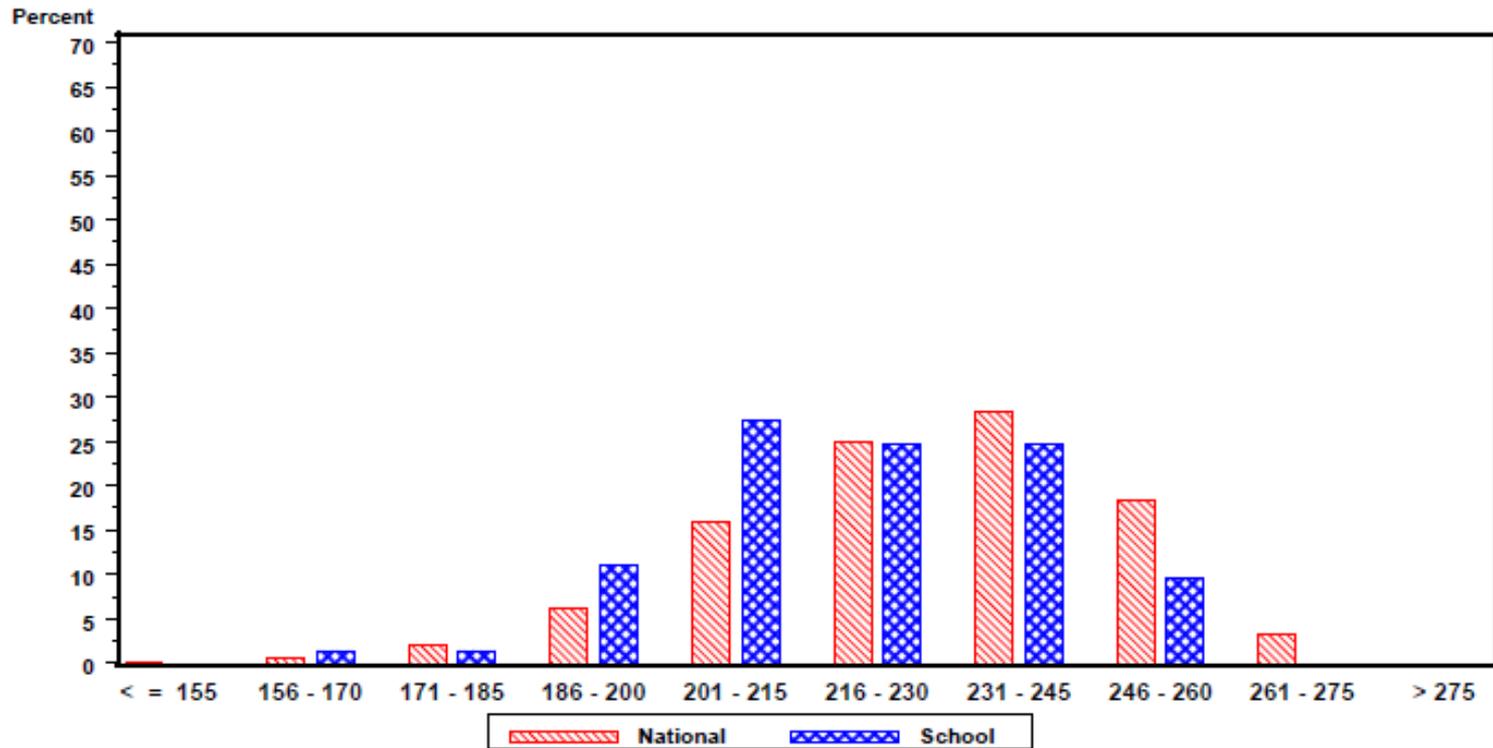


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USMLE Step 1 Score Distribution

Medical School: 049-010 Joan C Edwards Sch Med at Marshall Univ



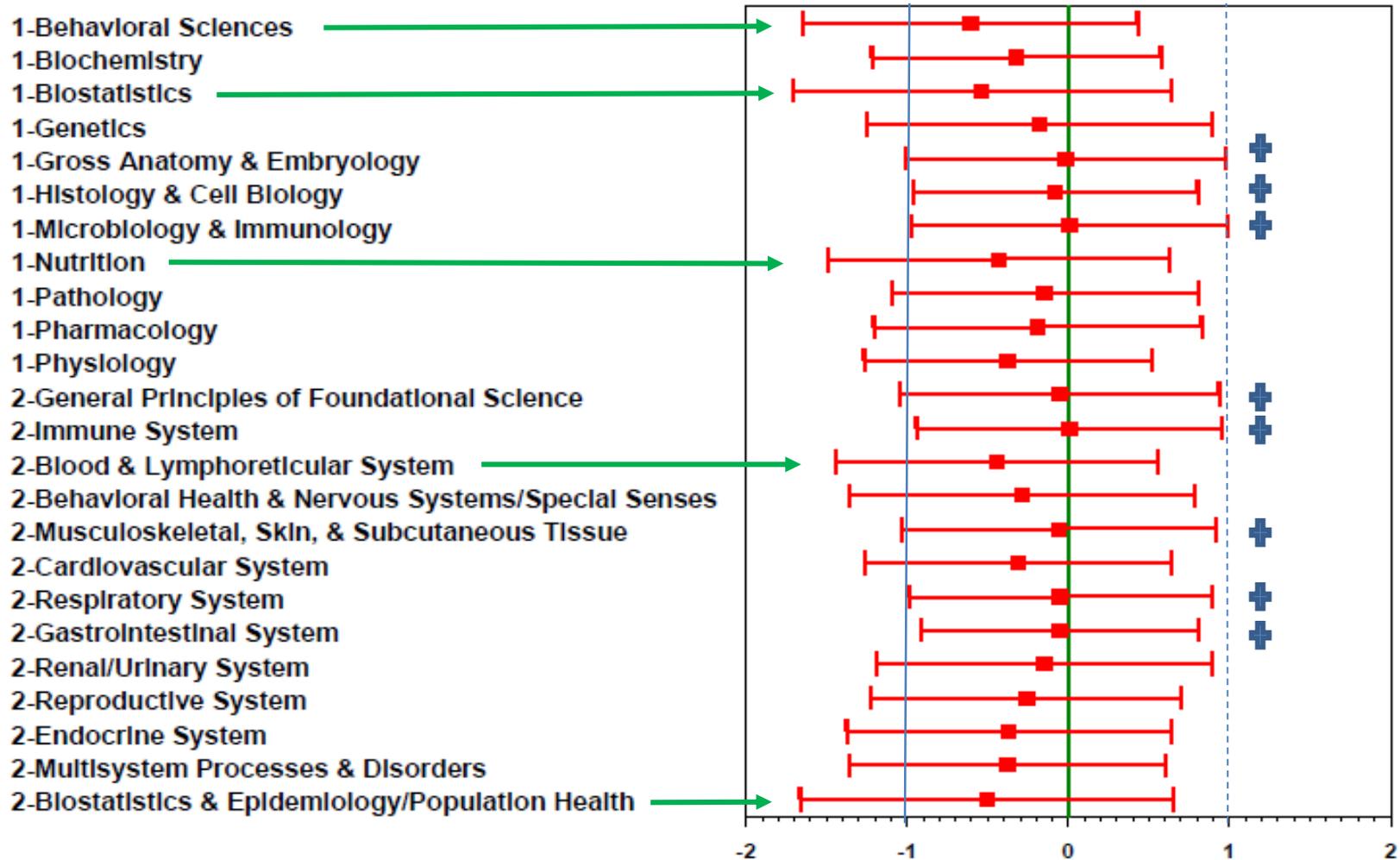
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NATIONAL BOARD OF MEDICAL EXAMINERS®

Interim Report on Performance of Examinees Taking USMLE® Step 1
for the First Time in 2015 with Scores Reported Through September 23

Medical School: 049-010 Joan C Edwards Sch Med at Marshall Univ

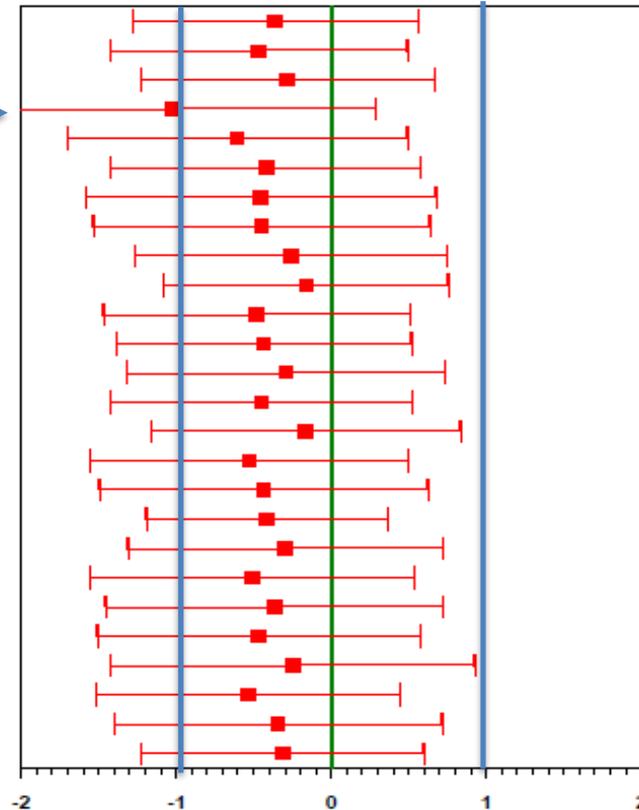


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Interim Report on Performance of Examinees Taking USMLE® Step 1 for the First Time in 2016 with Scores Reported Through September 28

Medical School: 049-010 Joan C Edwards Sch Med at Marshall Univ

- 1-MK: Applying Foundational Science Concepts
- 1-PC: Diagnosis
- 1-PC: Management
- 1-PBLI: Evidence-Based Medicine
- 2-Behavioral Sciences
- 2-Biochemistry
- 2-Genetics
- 2-Gross Anatomy & Embryology
- 2-Histology & Cell Biology
- 2-Microbiology & Immunology
- 2-Nutrition
- 2-Pathology
- 2-Pharmacology
- 2-Physiology
- 3-General Principles
- 3-Immune System
- 3-Blood & Lymphoreticular System
- 3-Behavioral Health & Nervous Systems/Special Senses
- 3-Musculoskeletal, Skin, & Subcutaneous Tissue
- 3-Cardiovascular System
- 3-Respiratory System
- 3-Gastrointestinal System
- 3-Renal/Urinary System
- 3-Reproductive System
- 3-Endocrine System
- 3-Multisystem Processes & Disorders



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Identifying Students at Risk



Risk Factors for Failing Step 1

- **MCAT**
- **1st MS 1 exam**
- **Overall MS 1 performance**
- **Overall MS 2 performance**
- **2nd year Miniboard performance**
- **CBSSA performance**



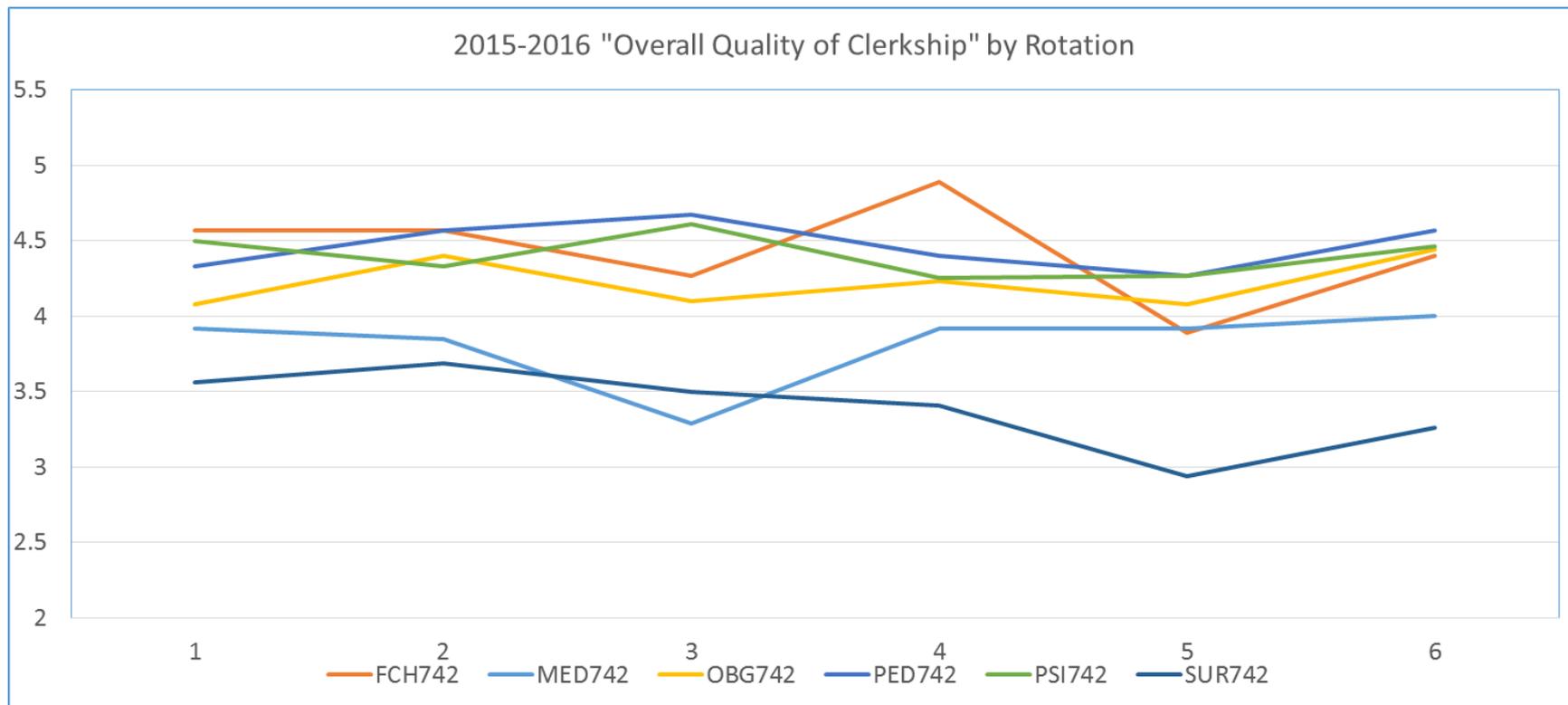
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Clinical Years Outcomes



Overall Quality of Clerkships



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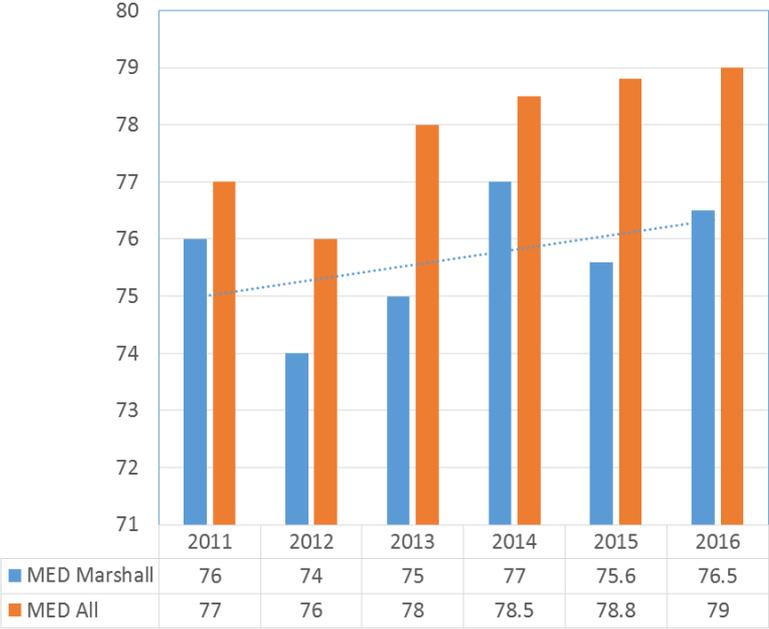
Rate the quality of your educational experiences on the following clerkships:

2015-2016 (2014-2015)

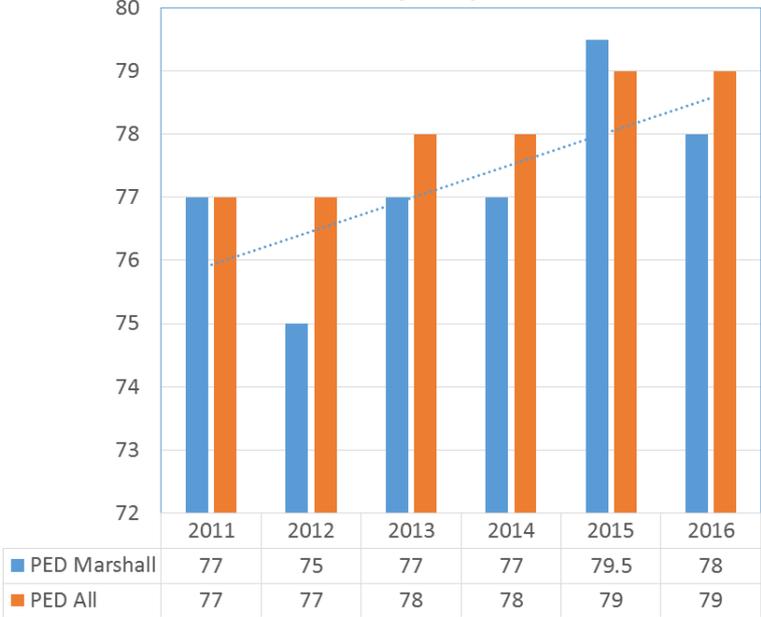
	Poor %	Fair %	Good %	Excellent %
Family Medicine	0.0 (0.0)	2.4 (0.0)	23.8 (26.9)	73.8 (73.1)
Internal Medicine	2.4 (3.8)	16.7 (11.5)	50.0 (40.4)	31.0 (44.2)
OB/GYN	2.4 (3.8)	4.8 (1.9)	23.8 (17.3)	69.0 (76.9)
Pediatrics	9.5 (1.9)	11.9 (1.9)	31.0 (19.2)	47.6 (76.9)
Psychiatry*	4.8 (0.0)	11.9 (9.8)	50.0 (43.1)	33.3 (47.1)
Neuroscience*	0.0 (0.0)	9.5 (0.0)	23.8 (30.8)	66.7 (69.2)
Surgery	21.4 (13.5)	23.8 (19.2)	45.2 (38.5)	9.5 (28.8)

Clerkship Exams

MED Clerkship Subject Exams



PED Clerkship Subject Exams

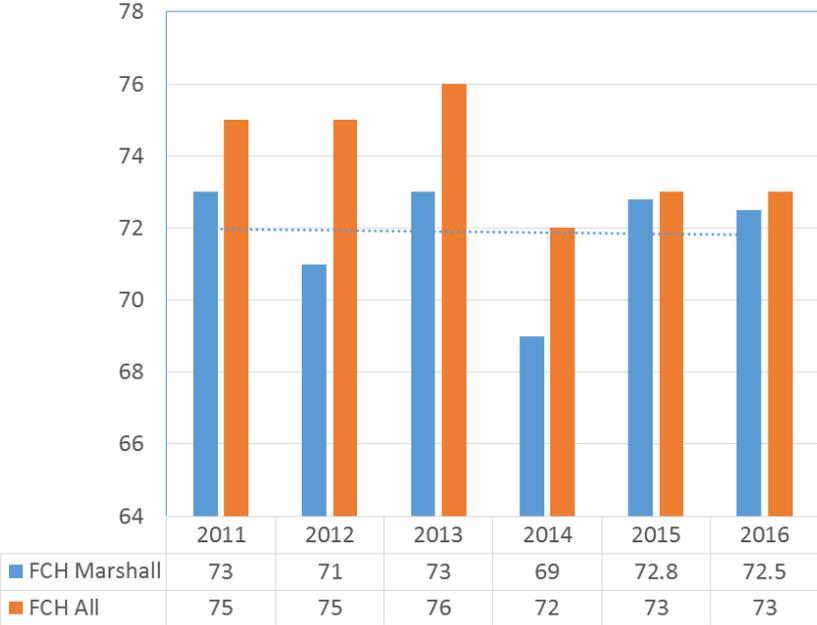


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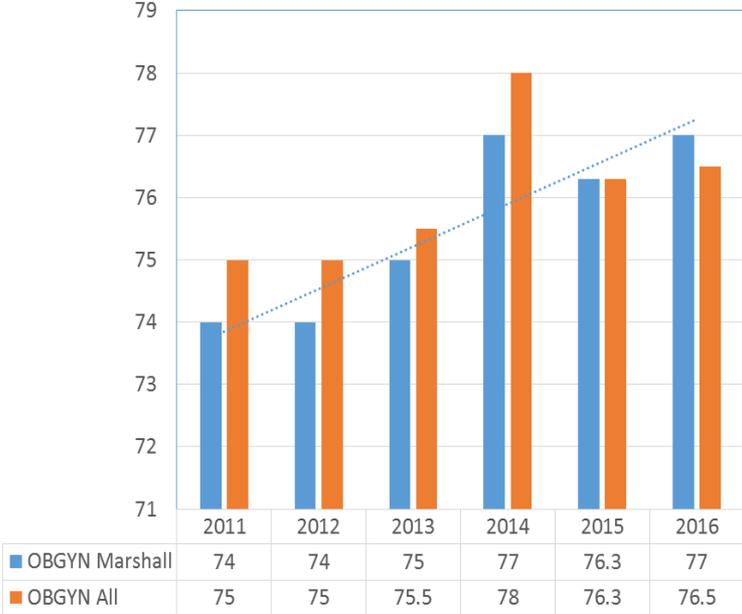


Clerkship Exams

FCH Clerkship Subject Exams



OBGYN Clerkship Subject Exams

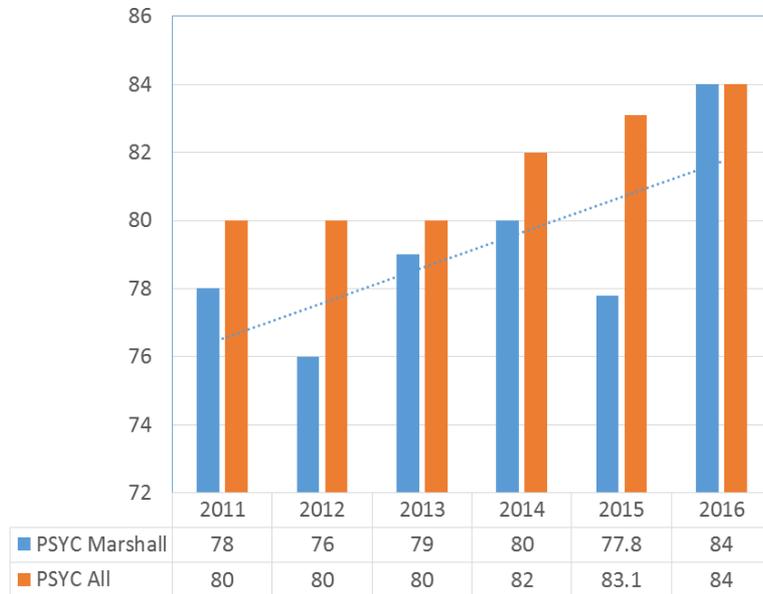


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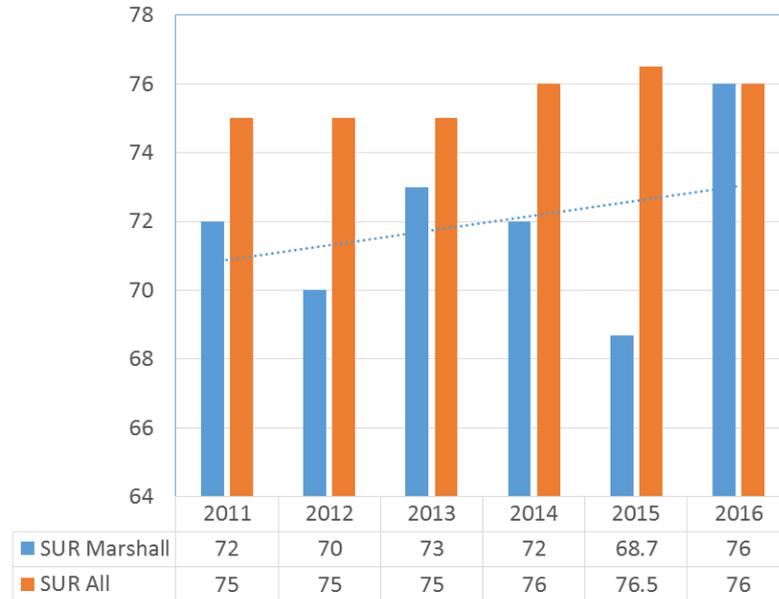


Clerkship Exams

PSYC Clerkship Subject Exams



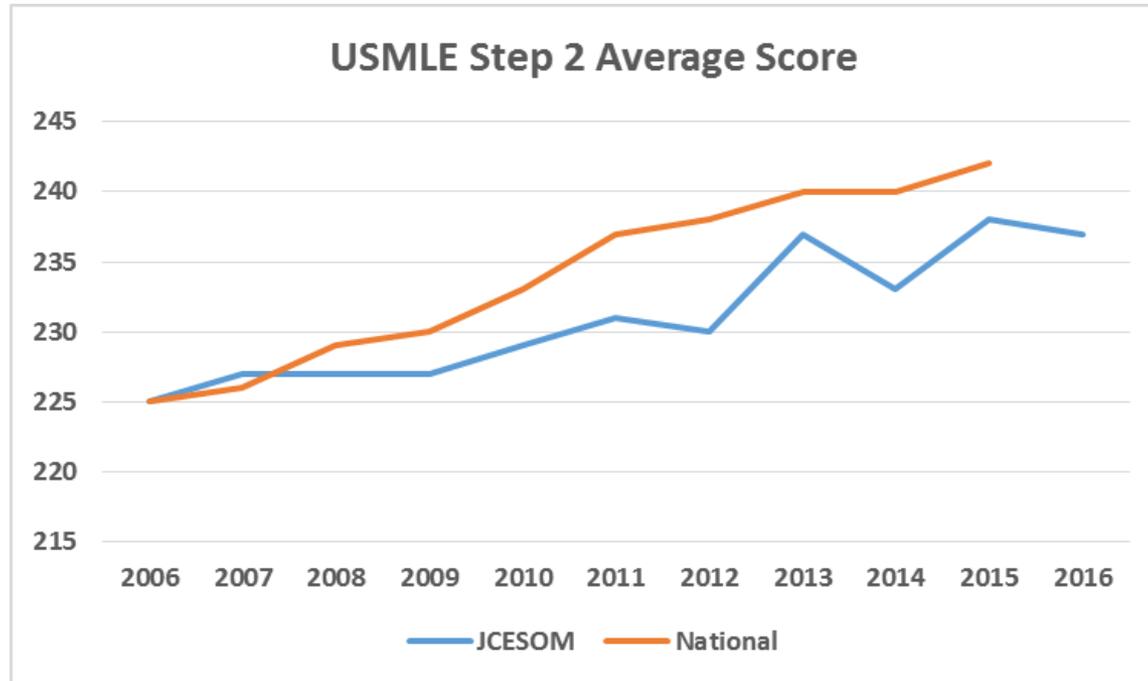
SUR Clerkship Subject Exams



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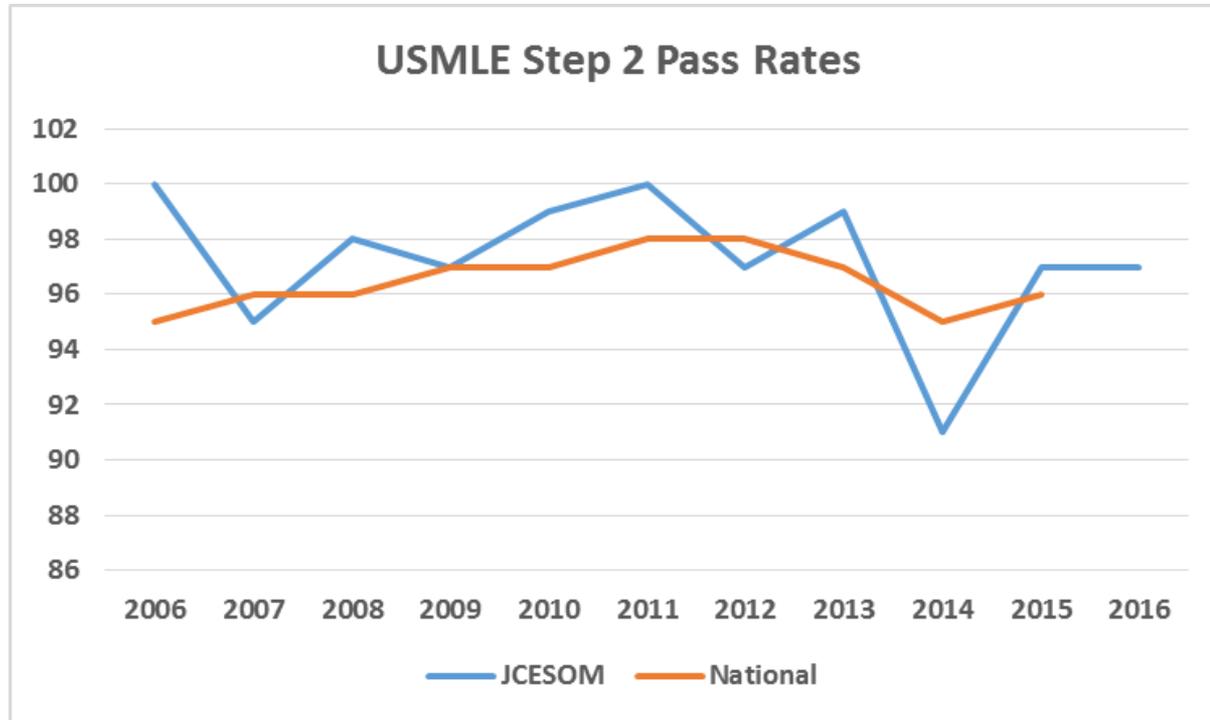
USMLE Step 2 CK Average Score



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USMLE Step 2 CK Pass Rate



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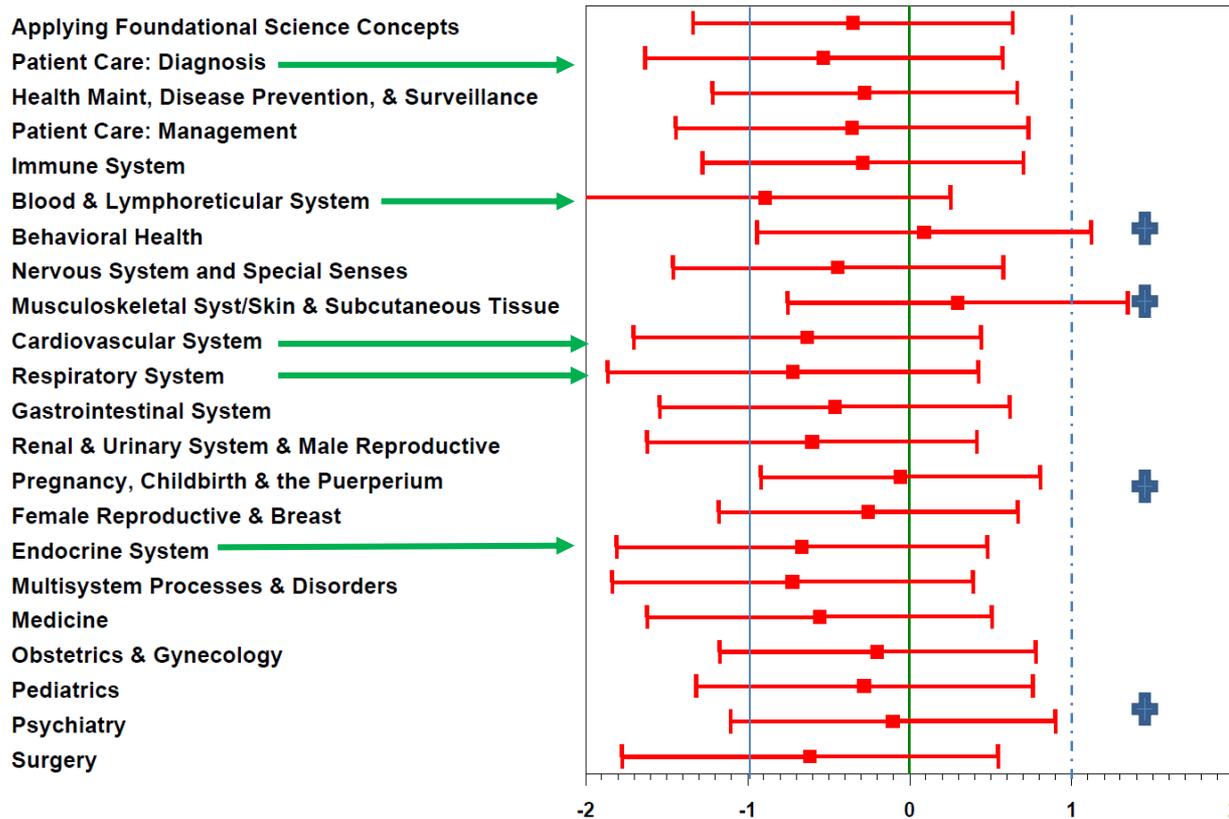
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Performance of Examinees Taking USMLE® Step 2 Clinical Knowledge (CK)

for the First Time in the Academic Year

July 2014 to June 2015

Medical School: 049-010 Joan C Edwards Sch Med at Marshall Univ



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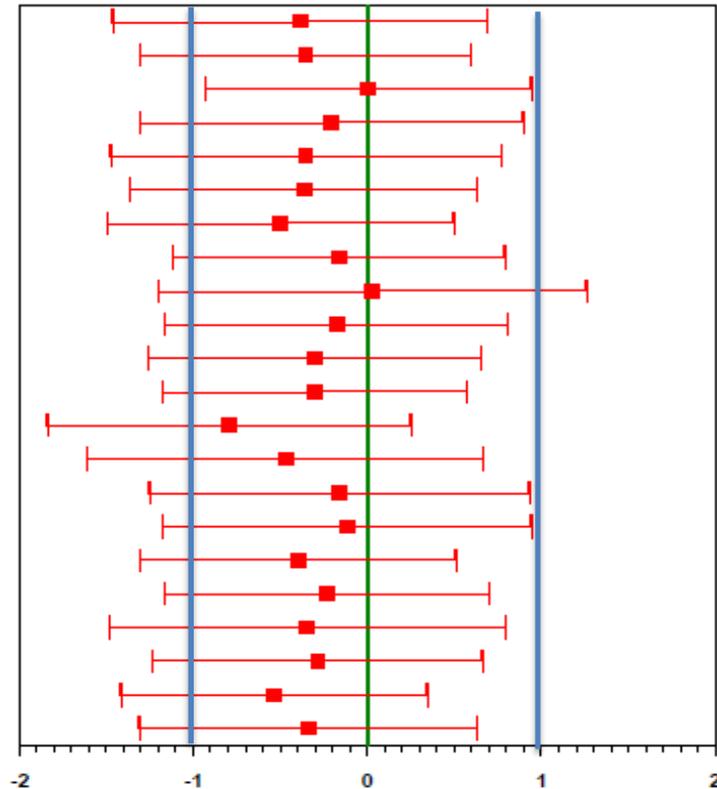
Performance of Examinees Taking USMLE® Step 2 Clinical Knowledge (CK)

for the First Time in the Academic Year

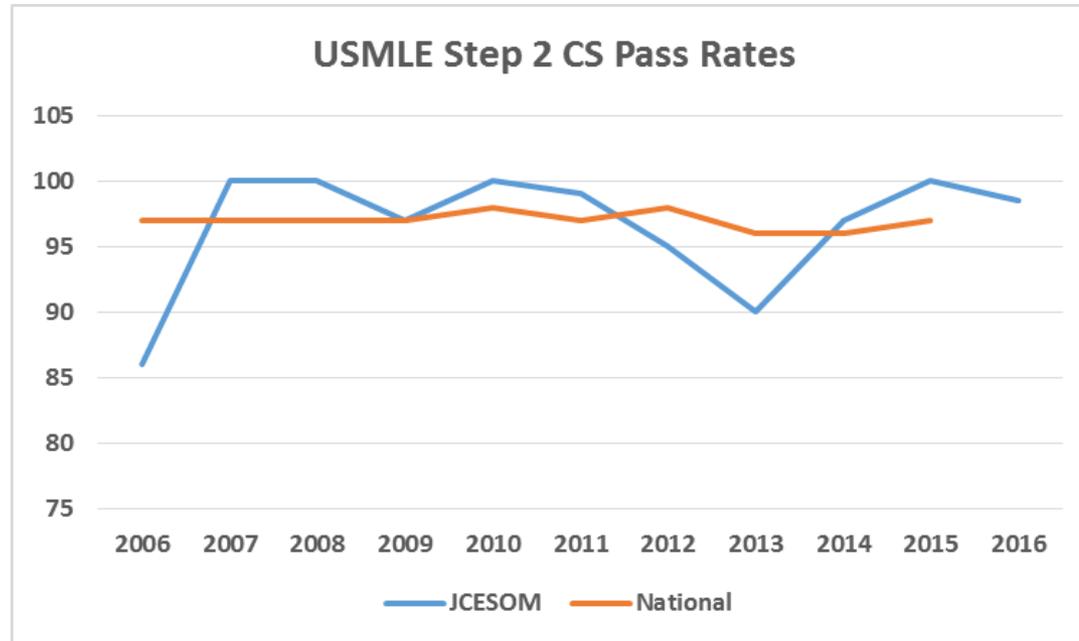
July 2015 to June 2016

Medical School: 049-010 Joan C Edwards Sch Med at Marshall Univ

Applying Foundational Science Concepts
Patient Care: Diagnosis
Health Maint, Disease Prevention, & Surveillance
Patient Care: Management
Immune System
Blood & Lymphoreticular System
Behavioral Health
Nervous System and Special Senses
Musculoskeletal Syst/Skin & Subcutaneous Tissue
Cardiovascular System
Respiratory System
Gastrointestinal System
Renal & Urinary System & Male Reproductive
Pregnancy, Childbirth & the Puerperium
Female Reproductive & Breast
Endocrine System
Multisystem Processes & Disorders
Medicine
Obstetrics & Gynecology
Pediatrics
Psychiatry
Surgery



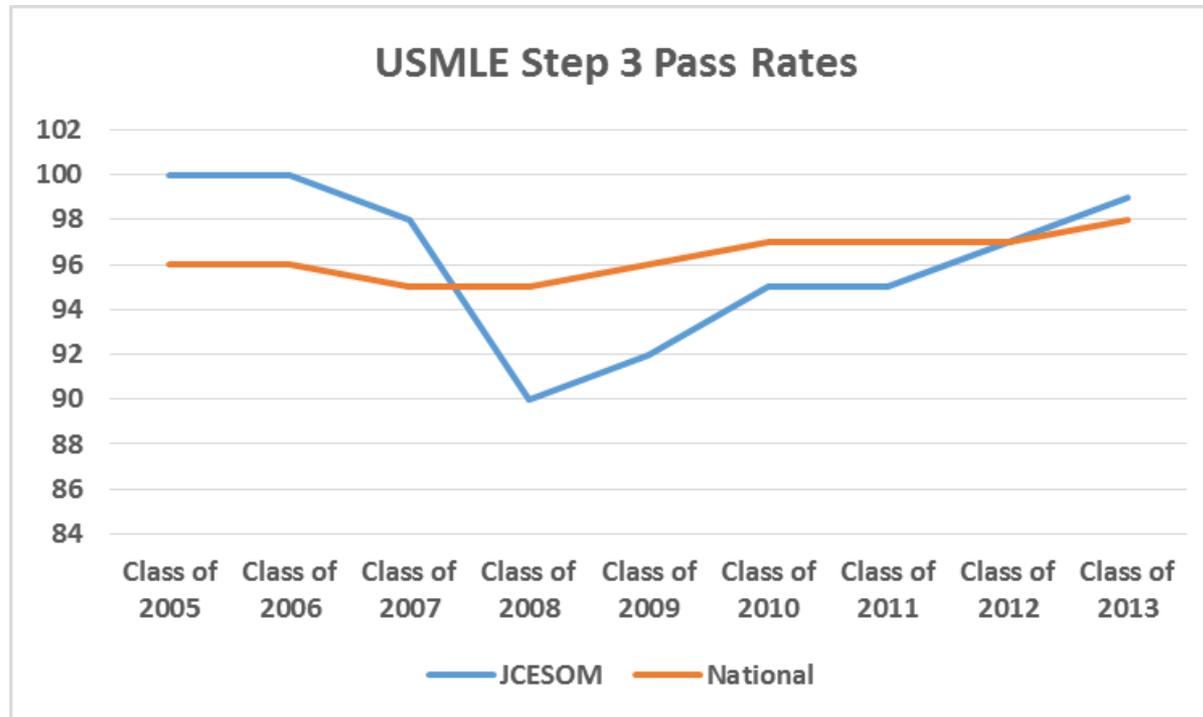
USMLE Step 2 CS Pass Rate



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USMLE Step 3 Pass Rates



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Program Director Surveys

MARSHALL UNIVERSITY SCHOOL OF MEDICINE CLASS OF 2013 PG 1 Residency Director Survey

Name of Resident _____ Residency Program _____ Status of Resident: _____ Trans. to Another Program, If so, Where? _____ Dismissed _____ TRANSFER To Specialized Residency _____ Remediating Part/All of PG 1 _____ REASON FOR REMEDIATION _____

AREAS OF EVALUATION	UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	OUTSTANDING	NOT EVALUATED
PROFESSIONALISM	<input type="checkbox"/> Does not accept responsibility; inappropriate or immature behavior	<input type="checkbox"/>	<input type="checkbox"/> Exhibits good judgment in personal and professional situations	<input type="checkbox"/>	<input type="checkbox"/> Exceptional professional conduct; demonstrates maturity, excellent judgment and integrity	<input type="checkbox"/>
RELATIONSHIP WITH PATIENTS	<input type="checkbox"/> Inertive and avoids personal contact with patients	<input type="checkbox"/>	<input type="checkbox"/> Relates appropriately to patients and demonstrates understanding of their personal and emotional needs	<input type="checkbox"/>	<input type="checkbox"/> Exhibits exceptional warmth and empathy with patients; respects patients' cultural and religious beliefs; effectively explains medical care	<input type="checkbox"/>
RELATIONSHIP WITH OTHERS	<input type="checkbox"/> Serious problems with interactions with others	<input type="checkbox"/>	<input type="checkbox"/> Works cooperatively with others	<input type="checkbox"/>	<input type="checkbox"/> A highly valued team member who promotes cooperation among others	<input type="checkbox"/>
FUND OF KNOWLEDGE	<input type="checkbox"/> Insufficient knowledge base	<input type="checkbox"/>	<input type="checkbox"/> Average knowledge base; usually applied appropriately	<input type="checkbox"/>	<input type="checkbox"/> Extensive knowledge base; excellent ability to integrate factual knowledge	<input type="checkbox"/>
DATA GATHERING ABILITY	<input type="checkbox"/> Incomplete or inaccurate histories and physicals; essential data frequently not obtained	<input type="checkbox"/>	<input type="checkbox"/> Careful, reasonable organized history with most significant issues covered; generally complete physical with most pathology detected	<input type="checkbox"/>	<input type="checkbox"/> Comprehensive, well organized histories with pertinent negatives; thorough and accurate physical exam	<input type="checkbox"/>
DIAGNOSTIC PROBLEM SOLVING ABILITY	<input type="checkbox"/> Frequently has difficulty integrating data from history and physical when developing differential; poor clinical judgment in selection of treatment plan	<input type="checkbox"/>	<input type="checkbox"/> Usually able to analyze data from history and physical to obtain concise problem list; ability appropriate for level of training to plan patient management; sound judgment in selection of lab tests, consults and therapeutic program.	<input type="checkbox"/>	<input type="checkbox"/> Consistently synthesizes data from history and physical to arrive at accurate, comprehensive differential; unusual abilities in patient management with excellent judgment in selection of laboratory tests, consults and therapeutic program	<input type="checkbox"/>
PROCEDURAL SKILLS	<input type="checkbox"/> Has difficulty performing the basic techniques and has difficulty with timing or organization	<input type="checkbox"/>	<input type="checkbox"/> Can adequately perform the basic techniques in an organized and coordinated manner	<input type="checkbox"/>	<input type="checkbox"/> Highly skilled with use of proper technique, organizes equipment prior to procedure	<input type="checkbox"/>
LEARNING ATTITUDE	<input type="checkbox"/> Lacks motivation, shows little evidence of independent work	<input type="checkbox"/>	<input type="checkbox"/> Conscientious worker who is receptive to teaching and feedback	<input type="checkbox"/>	<input type="checkbox"/> Exceptionally hard worker who maximizes learning opportunities	<input type="checkbox"/>
COMMUNICATION SKILLS	<input type="checkbox"/> Oral presentations are unorganized and does not accurately present patient information; write-ups and progress notes are unorganized or inadequate	<input type="checkbox"/>	<input type="checkbox"/> Oral presentations present patient information in an organized and accurate manner; write-ups and progress notes are clear and well organized	<input type="checkbox"/>	<input type="checkbox"/> Oral presentations demonstrate total knowledge of patient with outstanding ability to communicate; write-ups are outstanding; progress notes are thorough and well-organized	<input type="checkbox"/>
OVERALL EVALUATION: (please circle one)	UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	OUTSTANDING	

(Over, please)



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Program Director Survey

Resident's standing in relation to others at same program level : Bottom 50% Top 50% Top 25% TOP 10%
(please underline one)

PLEASE COMMENT ON THE RESIDENT'S PERFORMANCE NOTING STRENGTHS AND WEAKNESSES:

Has the resident required any disciplinary action? If so, please describe.

Mehiar El-Hamdani, MD

Marshall University School of Medicine Program, Internal Medicine, WV

Program Director's Name

Residency Program Name

Signature and Date

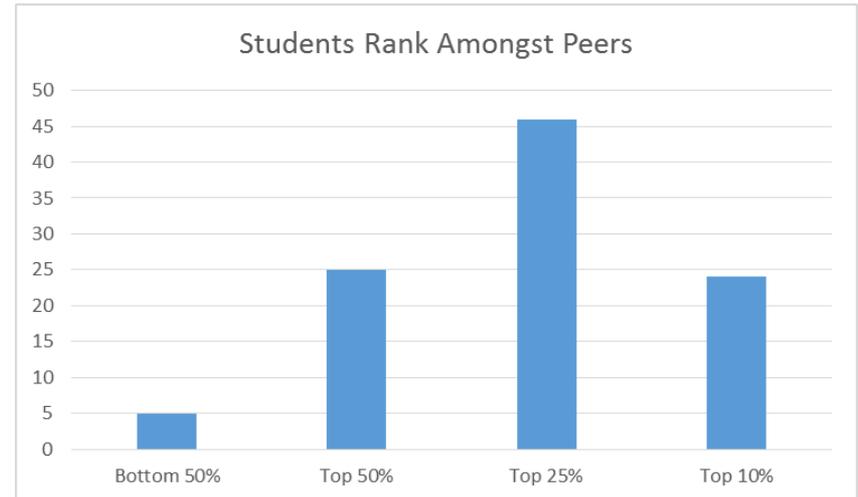


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PD Survey Results

Class of 2015



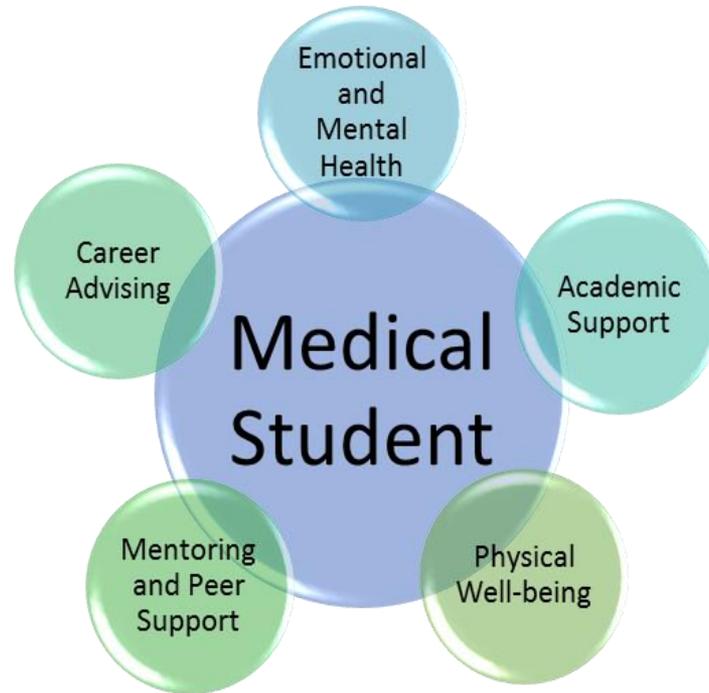
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Student Affairs



Office of Student Affairs



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Office of Student Affairs

- Careers in Medicine Curriculum
- Inter-Professional Education
- College of Health Professions Senate
- Internal Survey currently underway

- Study Space:
<https://jcesom.marshall.edu/students/facilities-study-space-and-building-access/>



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Office of Student Affairs

- **Match Day – March 17th**

Career	Number of Applicants
Anesthesia	1
Child Neurology	1
Dermatology	2
Emergency Medicine	5
Family Medicine	16
Internal Medicine	23 (includes prelim applications)
Internal Medicine/Pediatrics	4
Neurology	4
Obstetrics and Gynecology	5
Ophthalmology	1
Orthopaedic Surgery	2
Pathology	1
Pediatrics	9
Psychiatry	8
Radiology-Diagnostics	7
General Surgery	7 (includes prelim applications)
Military Match	2 (EM and Surgery) (included in the totals above)

Clinical Skills Lab

- **Maintain and train roughly 45 active standardized patients**

ICS	600
ACS	750
3rd Year	450
Final CCE's	450
Total	2250



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Office of Medical Education

- **Realignment of the Curriculum Committee**
- **Predictive Algorithms**
- **Curriculum undergoing a Continuous Review Process with review of 2015-2016 now complete**

Office of Medical Education

- **Progress Report to LCME by August 2017**
- **Ongoing LCME Accreditation next visit is 2018-2019**
- **5 Peer-Reviewed Publications**

Office of Academic Support

- August 2016 hired a Learning Specialist
 - Tutor Training
 - Time Management
 - Test Taking Skills
 - Study Strategies
- <https://jcesom.marshall.edu/students/student-affairs/office-of-academic-support/>



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Questions?

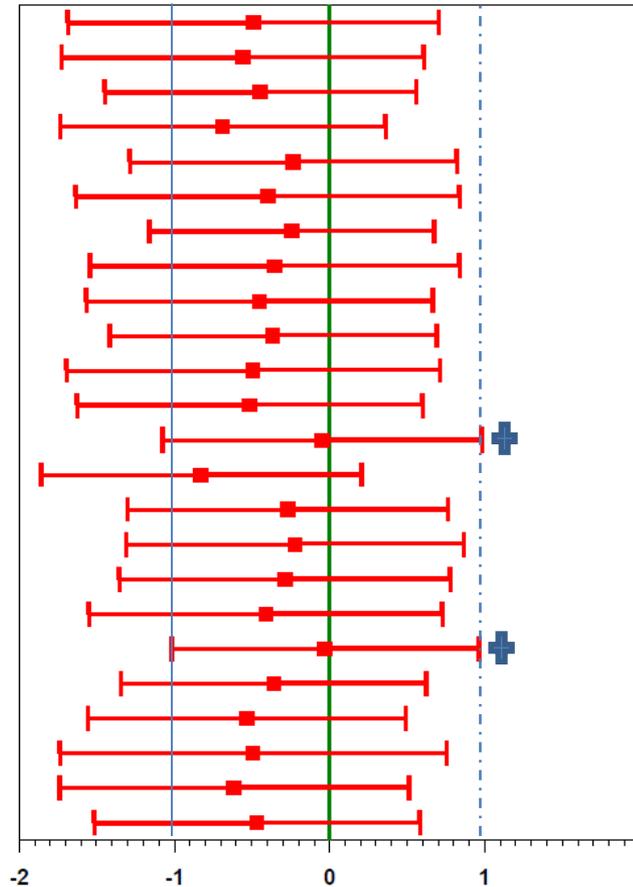


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Interim Report on Performance of Examinees Taking USMLE® Step 1
for the First Time in 2014 with Scores Reported Through September 24

Medical School: 049-010 Joan C Edwards Sch Med at Marshall Univ

- 1-Behavioral Sciences
- 1-Biochemistry
- 1-Biostatistics
- 1-Genetics
- 1-Gross Anatomy & Embryology
- 1-Histology & Cell Biology
- 1-Microbiology & Immunology
- 1-Nutrition
- 1-Pathology
- 1-Pharmacology
- 1-Physiology
- 2-General Principles of Foundational Science
- 2-Immune System
- 2-Blood & Lymphoreticular System
- 2-Behavioral Health & Nervous Systems/Special Senses
- 2-Musculoskeletal, Skin, & Subcutaneous Tissue
- 2-Cardiovascular System
- 2-Respiratory System
- 2-Gastrointestinal System
- 2-Renal/Urinary System
- 2-Reproductive System
- 2-Endocrine System
- 2-Multisystem Processes & Disorders
- 2-Biostatistics & Epidemiology/Population Health



Summary of STEP 1

- **Consistent with National Averages in:**
 - Immunology/Microbiology
 - Histology and Gross Anatomy
 - GI
 - Respiratory
 - Skin/MSK
- **Need to Improve:**
 - Biostats./Epidemiology
 - Nutrition
 - Blood/Lymphoreticular
 - Behavioral Sciences (improved at level of Clerkship)
- **Currently expanding coverage in Biostats., Safety Science**
- **Continuous quality improvement processes**

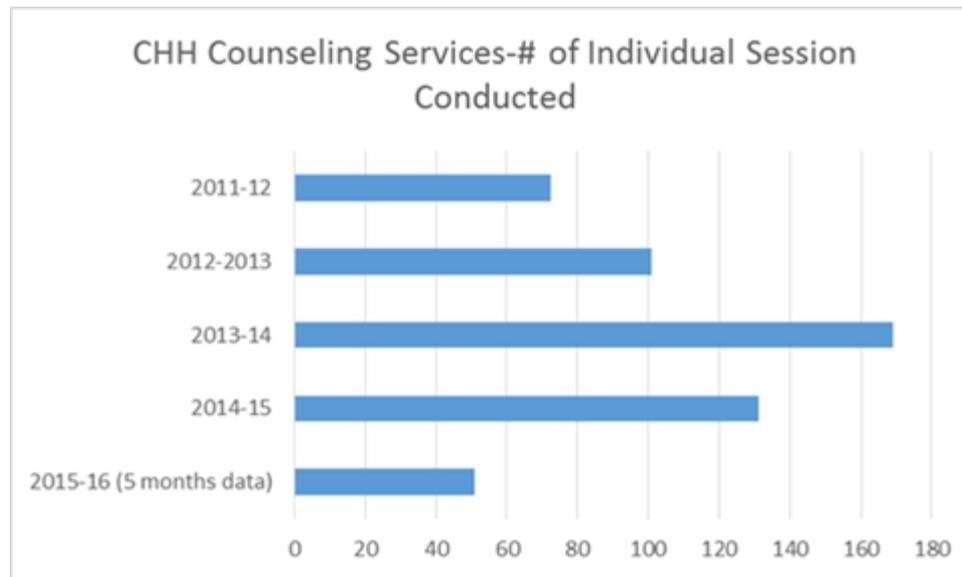


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Office of Student Affairs

- Emotional Health and Well-being



Academic Affairs

- **Certifying current 4th years for Graduation**
- **Small Group meetings with current 3rd years regarding 4th year scheduling**
- **Processed ~60 applications for visiting students**



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