

#### NATIONAL Sciences ACADEMIES Medicine

Global Forum on Innovation in Health Professional Education

## Affordability of Health Professional Education

Virtual Pre-workshop 1 – Is cost a barrier? February 28, 3-5pmET

Virtual Pre-workshop 2 – Financial models March 25, 10:30-12:30pmET

Virtual Pre-workshop 3 – Cost & primary care April 1 (TBD)

Hybrid Workshop (Washington, DC) – Value April 23, 4-6pmET April 24, 9-12noonET

#### Workshop Planning Committee

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**Dniversity of Washington** 

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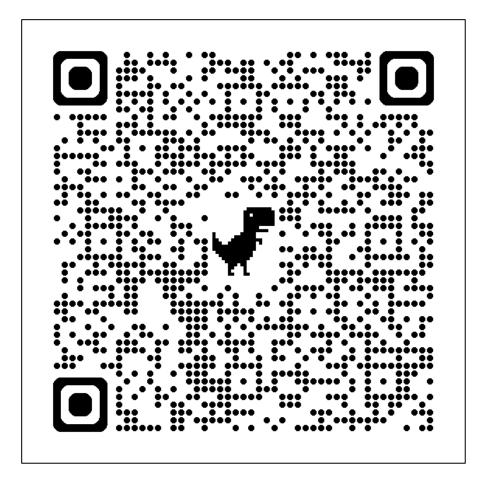
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# Global Forum on Innovation in HPE

NATIONAL Sciences
ACADEMIES Medicine

Medicine

# IS COST A BARRIER FOR STUDENTS TO ENTER INTO HEALTH PROFESSIONS EDUCATION (HPE)?

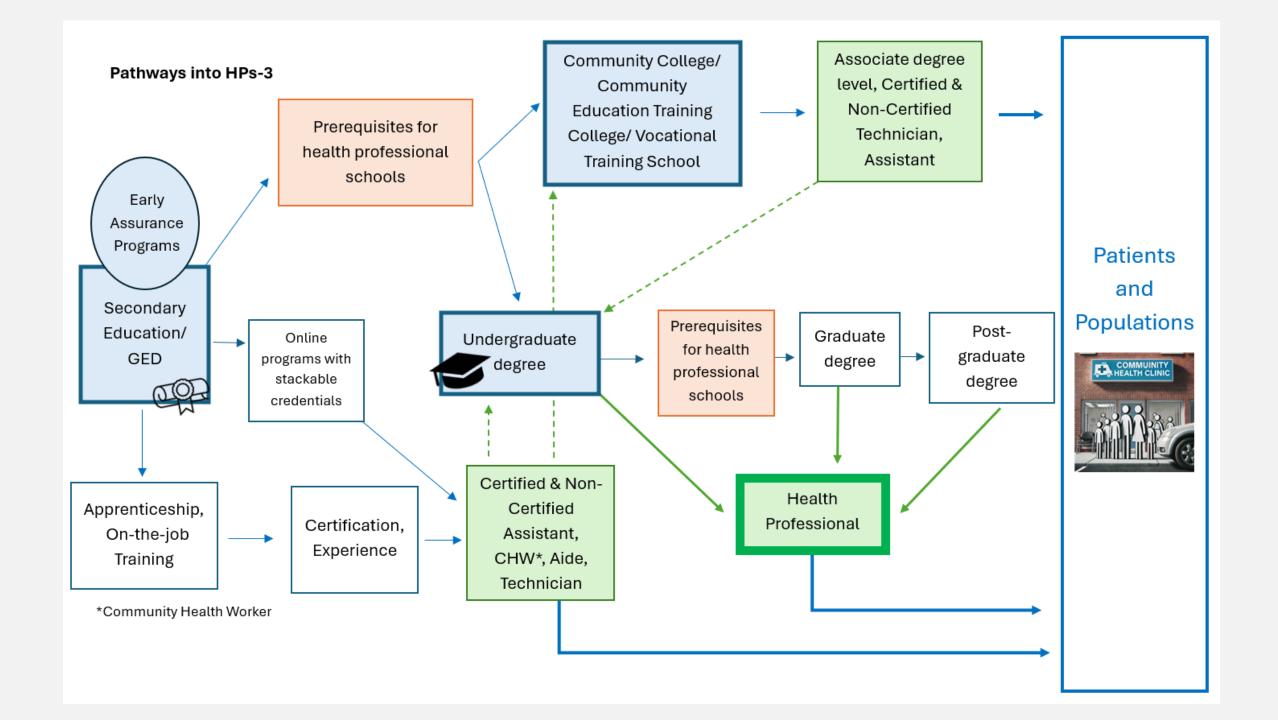
Workshop: The Affordability of HPE

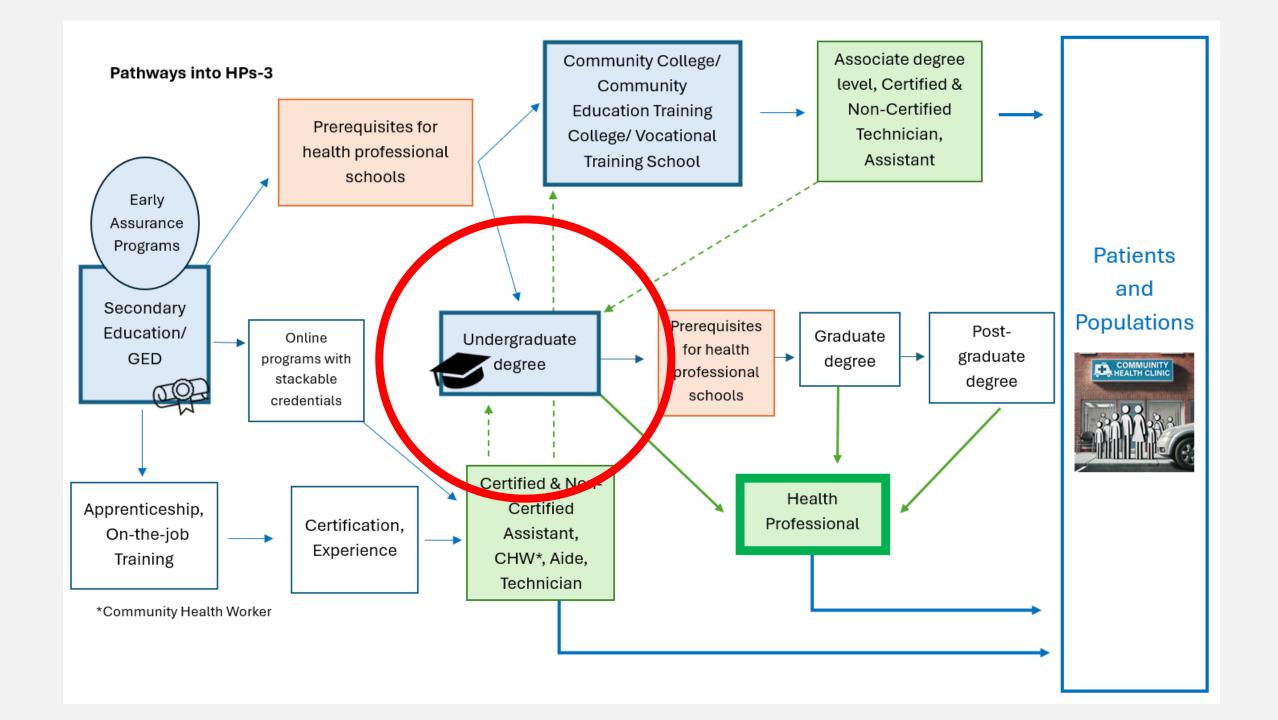
#### WHY ASK IF COST IS A BARRIER TO HPE?

- Declining enrollment
- Mismatch between low student interest and high employment demand
- School & program closures
- Education debt and role of professional pathway design
- Burnout and mental health
- ROI and health professional graduates' decisions

### WHY ARE HPE COSTS TO EDUCATE HIGH?

- Complex, often technical, resource intensive task requiring skilled educators
- Our accreditation and licensing requirements increase these costs
- Professional Knowledgebase Expansion = Content Explosion = ever expanding entry-level curricular expansion
- Extraprofessional Knowledgebase Expansion = more background and contextual knowledge pushing professional to graduate level?
- Shift in governmental and employer cost sharing = shift to students to bear costs



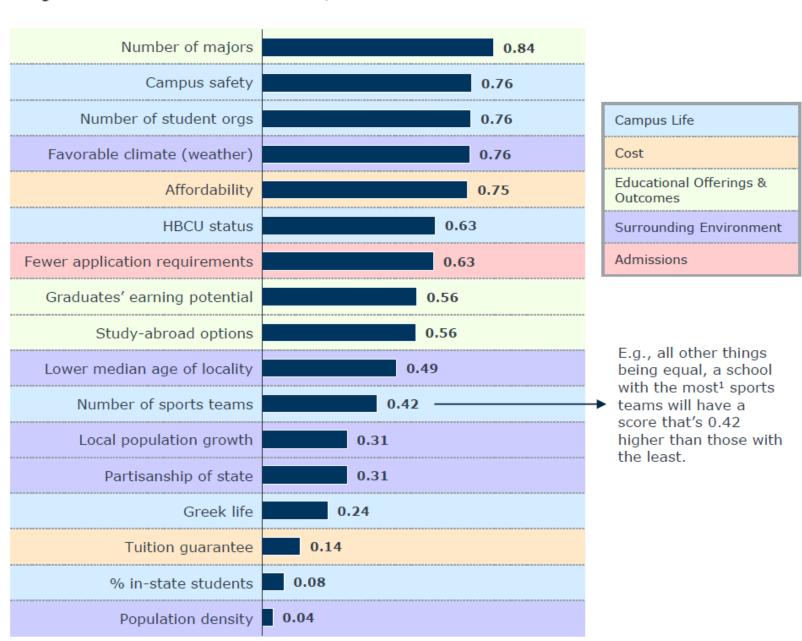


#### Contribution of Significant Traits to a School's Overall Student-Attractor Score

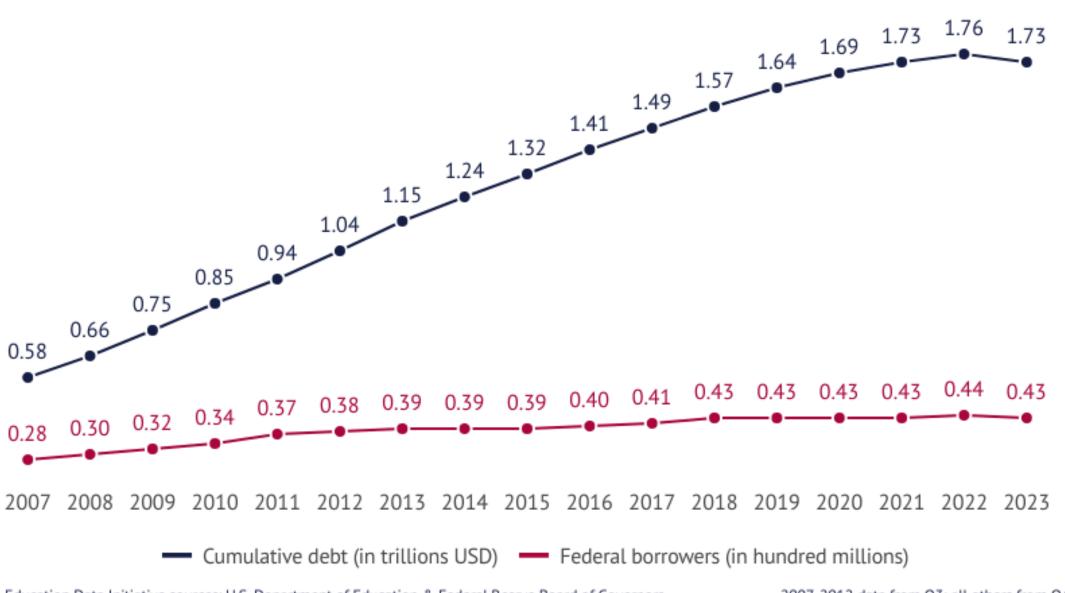
Average for All Four-Year US Institutions, 10.0 = Maximum Student-Attractor Score



(EAB, 2025),







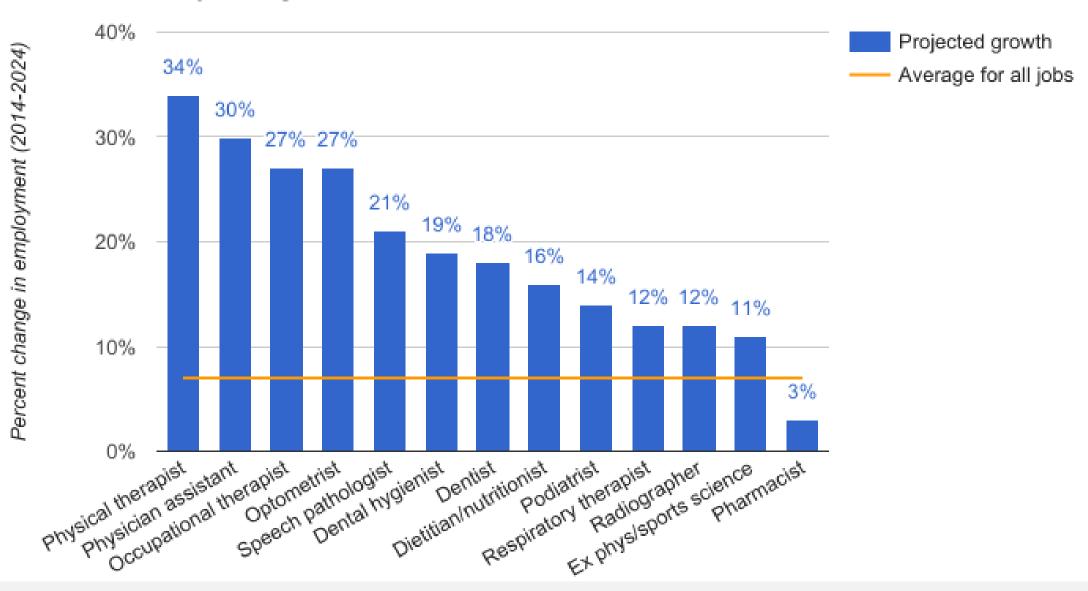
#### DEBT/EARNINGS IN 2020 FOR A BACHELOR'S DEGREE

cipdesc	Median earnings	Median debt	debt/earr	nings
Pharmacy, Pharmaceutical Sciences, and				
Administration.	57996	20922	أ 0ر:	0.36
Dental Support Services and Allied			20X10	
Professions.	54659	21653		0.40
Business, Management, Marketing, and				
Related Support Services, Other.	43776	23108		0.53
Psychology, Other.	32083	21569		0.67
Nutrition Sciences.	28955	21122		0.73
Rehabilitation and Therapeutic Professions.	30285	23667		0.78
Social Work.	30835	24131		0.78
Dietetics and Clinical Nutrition Services.	29222	23356		0.80
Psychology, General.	28421	22944		0.81

# DEBT/EARNINGS AFTER FIRST PROFESSIONAL DEGREE (2020)

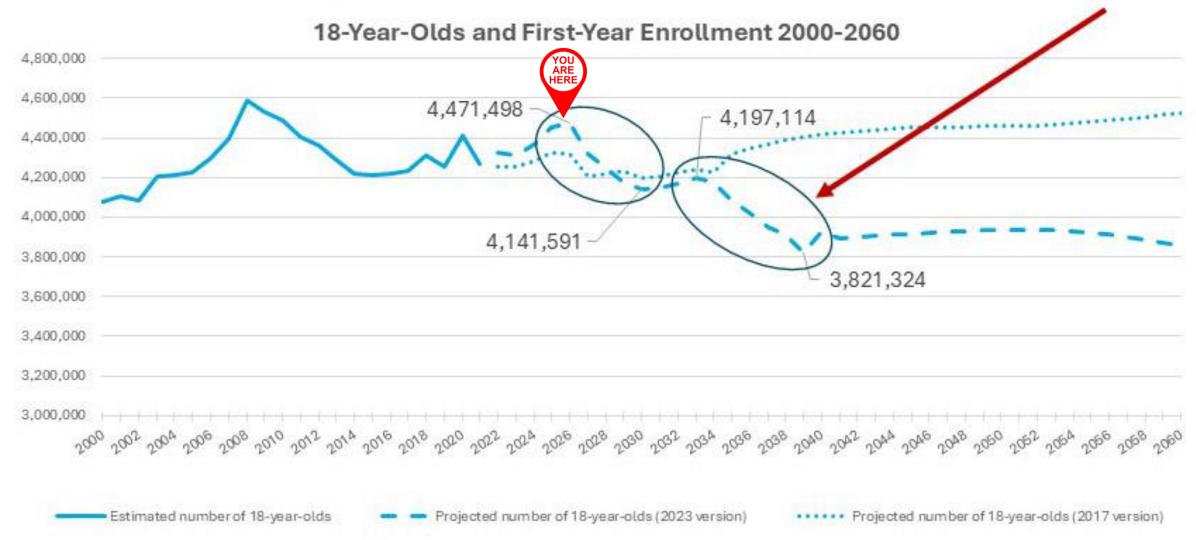
cipdesc	Median earnings	Median debt	debt/earnings	
Registered Nursing, Nursing Administration, Nursing				
Research and Clinical Nursing.	111099	63430		0.57
Pharmacy, Pharmaceutical Sciences, and Administration.	110728	126013		/.TY
Rehabilitation and Therapeutic Professions.	68288	100067	, 0	1.47
Optometry.	85581	162775	4.	1.90
Veterinary Medicine.	72458	156700	20X10	2.16
Dentistry.	97215	241552	20'	2.48
Clinical, Counseling and Applied Psychology.	65800	194270		2.95
Medicine.	55572	170602		3.07
Podiatric Medicine/Podiatry.	52036	207674		3.99
Osteopathic Medicine/Osteopathy.	53936	232053		4.30
Chiropractic.	35504	178596		5.03
Alternative and Complementary Medicine and Medical				
Systems.	24000	229551		9.56

#### Projected growth of health careers



Source: US Bureau of Labor Statistics

#### **Two Demographic Cliffs**



Sources: Actual and Projected College Freshmen: <u>Digest of Education Statistics</u> 2016, 2020, 2022. Estimated Number of 18-Year-Olds: U.S. Census Bureau 2017 estimates, <u>2023 estimates</u> (first to be based on 2020 census data).

From Ruffalo Noel Levitz: https://www.ruffalonl.com/blog/enrollment/two-demographic-cliffs-the-enrollment-case-for-diversifying-revenue-streams/

### TOPIC REVISITED

Is Cost A Barrier for Students to Enter into Health Professions Education (HPE)?

### **Exploring Cost as a Barrier to Health Professional Education**



Affordability of Health Professional Education:

A Workshop Series February 28, 2025

Rich Shields PT, PhD, FAPTA Professor and Chair Carver College of Medicine





CHANGING MEDICINE.
CHANGING LIVES.

#### **Our Collective Mission:**

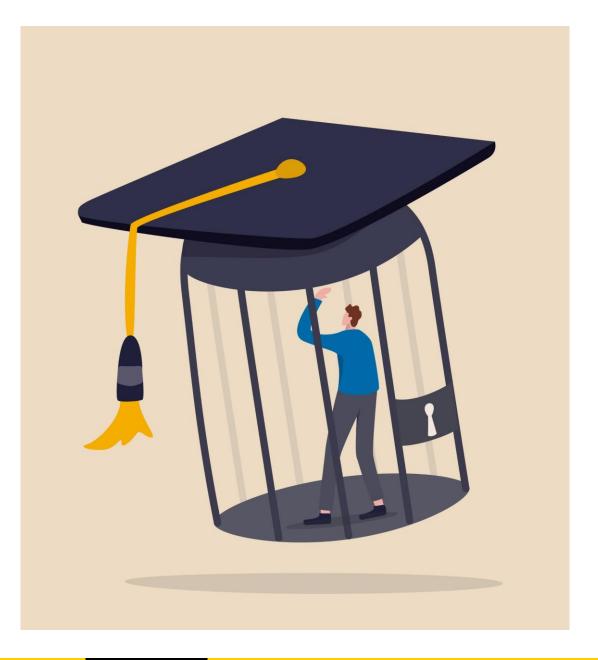
To develop a workforce that can deliver value-based care for **all** people who need our health care services.

Our **learning environments** should support **all** health care professionals to excel and meet the needs of society.

**High Value Workforce = Right People, Right Place, and Right Cost** 

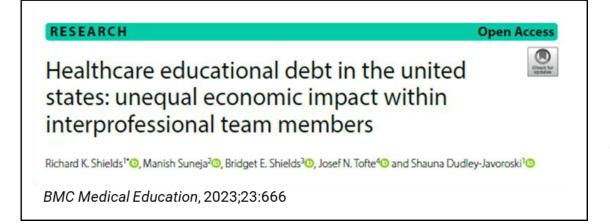
#### Objective 1: To understand how...

Educational debt influences the economic value of a health professional education



### Economic Value of a Health Professional Education

Strengthened By:	Weakened By:
High starting salary	Long educational duration (lost wages)
Annual salary growth (CAGR)	Debt repayment
Long career duration	



#### "Present Value":

- Starting salary
- CAGR
- Debt
- Expressed in today's dollars
- Makes some
   assumptions about
   future economic
   conditions

#### Objective 2: To understand how much...

Educational debt is supportable by entry level salaries in Health Professional Education



#### 10 Year Salary Change in Health Professions

PT entry-level salary	\$77,750 (2021 data)	
Salary CAGR (10 year)	1.51%	Inflation: 1.41%
PT Total Ed. Debt	\$99,592	



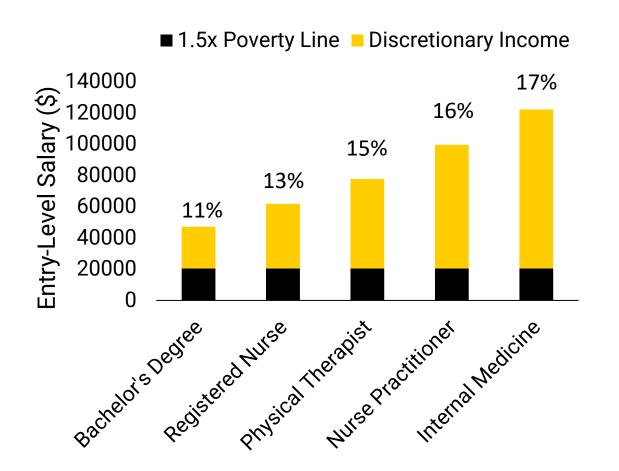


Salary growth in "real dollars"

\_

**Discretionary Income** 

#### "Supportable" Debt is Linked to Discretionary Income



"Debt Service Ratio": the max recommended % of income dedicated to debt repayment.<sup>1</sup>

Higher-earning professions can accommodate a higher debt service ratio.

	Debt Service Ratio	Max Annual Loan Payment	Max Monthly Loan Payment
Bachelor's Degree	11%	\$2,946	\$245
Registered Nurse	13%	\$5,383	\$449
Physical Therapist	15%	\$8,605	\$717
Nurse Practitioner	16%	\$12,665	\$1,055
Internal Medicine	17%	\$17,298	\$1,442

<sup>1)</sup> Baum S, Schwartz S. How much debt is too much? Defining benchmarks for manageable student debt. Washington, D.C.: The Project on Student Debt/The College Board; 2006

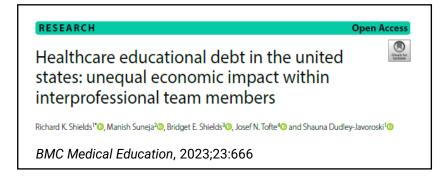


#### How Much Debt is Supportable by Entry-Level Salaries?

	Max Monthly Loan Payment	
Bachelor's Degree	\$245	
Registered Nurse	\$449	
Physical Therapist	\$717	
Nurse Practitioner	\$1,055	
Internal Medicine	\$1,442	

				\\ \sigma' \sigm
			Extended	Income Contingent
	Ctondord	Cutondod		Income-Contingent
	Standard	Extended	Graduated	plans
Total Debt	(10 yr)	(20 yr)	(25 yr)	(20-25 yr)

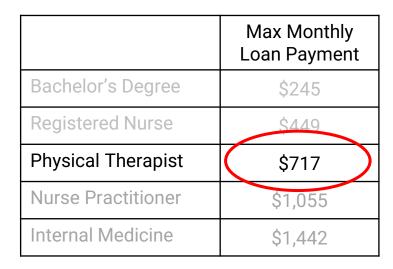
Beyond \$150,000 debt, only income-contingent plans permit graduates to remain below the 15% debt service ratio limit (\$717 monthly payment). Forgiven amount is taxable income.

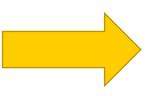


#### Current Entry-Level Salaries

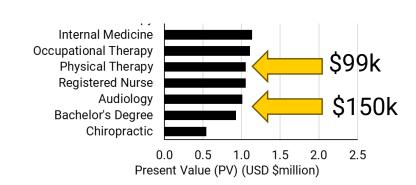


# Max 15% Discretionary Income



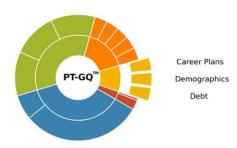


Max \$150,000
Total Debt
(Undergrad +
DPT)



#### Objective 3: To understand how many ...

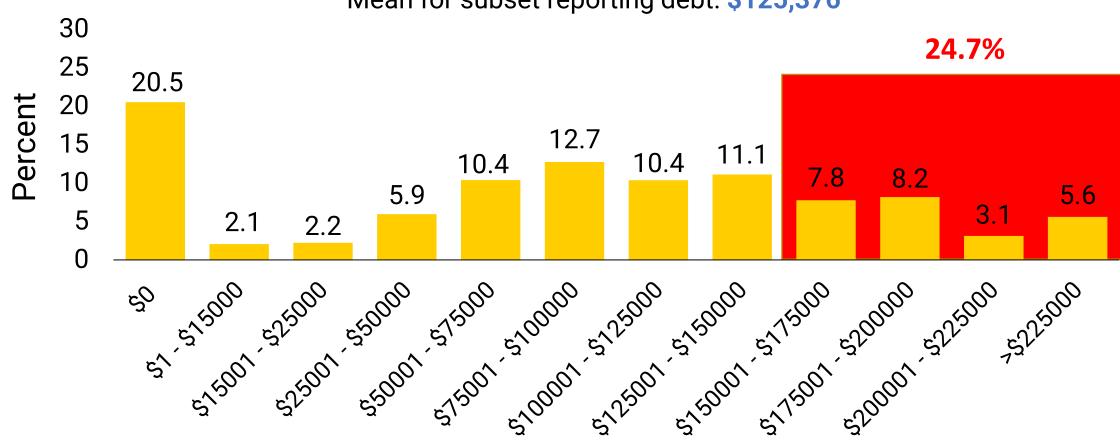
Graduates have unsupportable debt for undergraduate and graduate professional health degrees: Focus on Physical Therapy



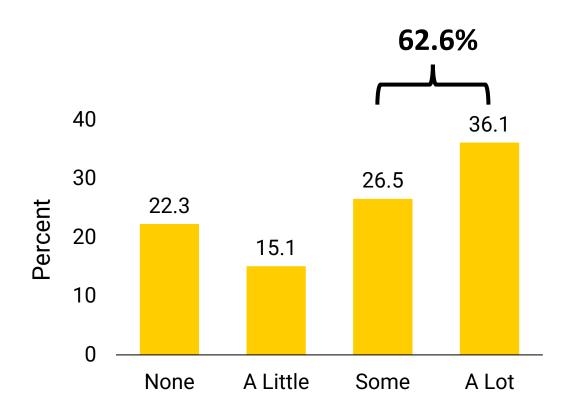
#### National Benchmarks - PT

Mean Total Educational Debt: \$99,642

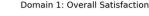
Mean for subset reporting debt: \$125,376

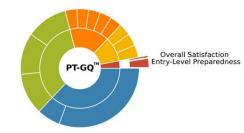


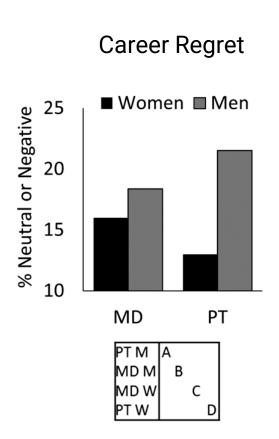
# "How much does your student loan debt influence your decisions about your post-training career selection?"

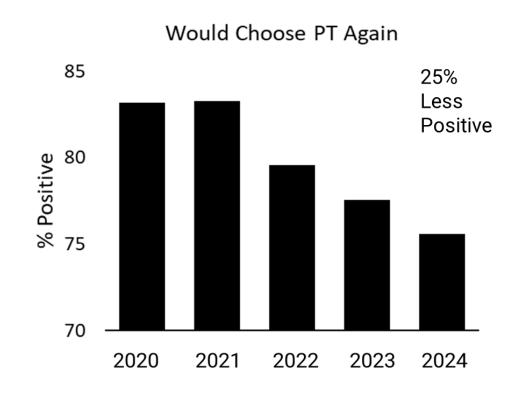


# "Career Regret" in PT and MD using Time-Series Benchmarks

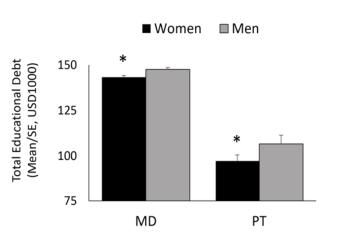








#### Student Debt



#### Summary



Educational debt reduces the "net present value" of **certain** Health Professional degrees, like PT, to that of a bachelor's degree.

Educational debt, over a certain threshold (150K for PT), is not supportable for **certain** Health Professional degrees using standard loan repayment methods.

Educational debt, over a certain threshold (150K for PT), is prevalent among Health Care Professionals (25% of all PT's exceed 150K).

Educational debt may contribute to downstream effects like exhaustion, career regret, career plans, and workforce attrition in health care.

#### Thank You

# The Affordability of Health Professional Education: Is Cost a Barrier to Entering Health Professional Education?

National Academies of Science - February 28, 2025

Nathan Sick | Senior Research Associate | Urban Institute



Disclaimer: The views expressed in this presentation do not necessarily reflect the views or policies of the Urban Institute, OPRE, ACF, or HHS.

#### Cost is Not Necessarily a Huge Barrier to Completing Entry-Level Training

#### Entry-level healthcare is often relatively affordable

- CNA training ranges in cost from around \$500 to \$2,000, including tuition, supplies, and other fees.
- A minimum of 75 hours of training is required (with 16 clinical hours), which often takes less than 2 months. Many entry-level trainings take less than 4 months.
- Other entry-level training includes home health aides, medical assistant, and pharmacy assistant.
- Evaluations of programs providing healthcare training have shown that people with low incomes have several reasonable venues to access entry-level training:
  - Training programs with tuition assistance
  - Employer subsidized training
  - Financial aid (such as Pell grants)
  - Paying directly

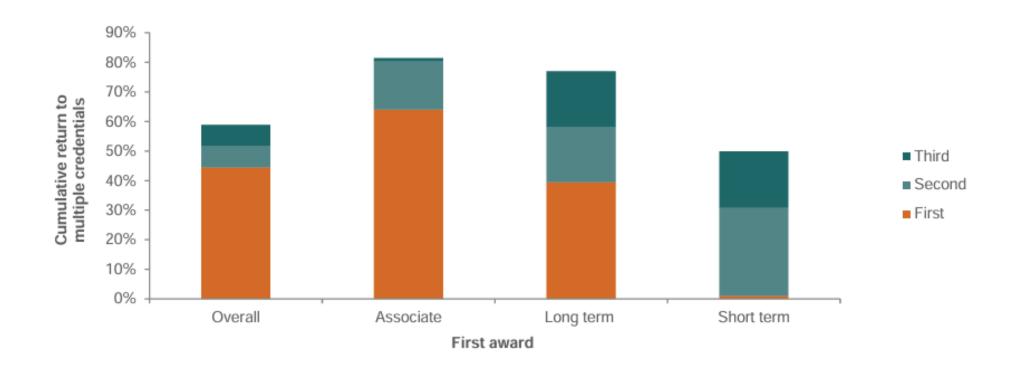
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# But wages are low, necessitating moving up the career pathway to access a family sustaining wage

- CNA (\$18.33 per hour), HHA (\$16.12 per hour), and Medical Assistant (\$20.19 per hour) wages have increased in recent years - but are not substantively higher than many nonhealthcare occupations, including the service industry.
- Moving up the career ladder is necessary for family sustaining wages – but is rare (Juras et al. 2022; Bohn et al. 2016).
- In one study (Bohn et al. 2016) only 13% of students "stacked" a credential and only 3 to 7 percent of students completed a higher nursing credential (Juras et al. 2022; Bohn et al. 2016).

**Sources**: Bureau of Labor Statistics; Bohn, Sara, Shannon McConville, and Landon Gibson. 2016. *Health Training Pathways at California's Community Colleges*. California: Public Policy Institute of California; Juras, Randall, Karen Gardiner, Laura Peck, and Larry Buron. 2022. *Summary and Insights from the Long-Term Follow-Up of Ten PACE and HPOG 1.0 Job Training Evaluations: Six-Year Cross-Site Report*. OPRE Report 2022-239. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

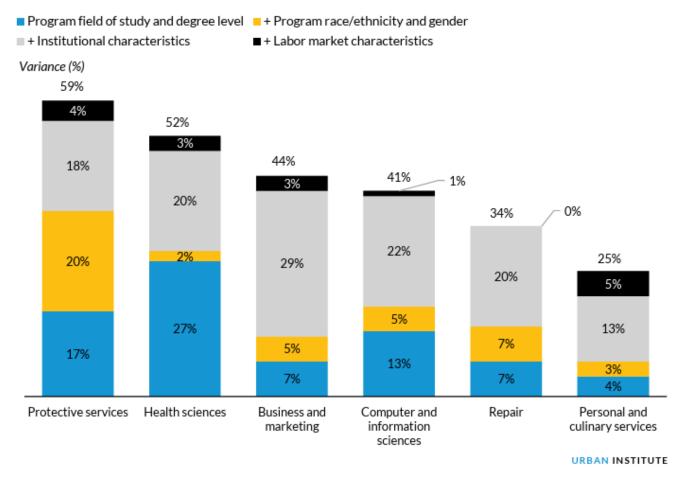
# There is relatively little return to one short-term health credential:



**Source**: Bohn, Sara, Shannon McConville, and Landon Gibson. 2016. *Health Training Pathways at California's Community Colleges*. California: Public Policy Institute of California.

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# More than other fields, healthcare credential value is sensitive to which credential you study:





# Moving up the career pathway incurs higher costs – including opportunity costs

- Opportunity cost = the loss of potential gain from other alternatives when one alternative is chosen – such as foregone earnings.
- Higher level credentials (ex. Licensed Practical/Vocational Nurse) or degrees (Associate or Bachelor of nursing) take substantially longer (1+ year) and are *much* costlier
- But earnings are also much higher ex. LPN/LVN (\$28.72 per hour) and RN (\$41.38 per hour)

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# Life happens. During longer trainings:

- Students need:
  - More savings and they may incur more debt
  - More supports (child care, transportation, emergency)
- Completion rates are lower because:
  - Courses are harder (arguably much harder than in entry-level training)
  - Students may need to work at the same time
  - Barriers arise

But still, evidence shows that completers will earn much more.

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# Stacking entry-level credentials is another option...

- For example Patient Care Technician (PCT) is a combination of CNA, Phlebotomy, and EKG certificates
- Three short certificates people can dip in and out of work and education, balance the two more easily
- But the evidence shows this does not result in an appreciable earnings increase – less than \$1 per hour
- Could there be other pathways...? Opportunities for innovative pathways?
- Innovative trainings opportunities co-location of training and employment, flexible training, greater employer support

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# Is cost a barrier to HPE? An Australian perspective

Jonathan Foo, PhD

Society for Cost and Value in Health Professions Education (SCVHPE) Monash University

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<u>Acknowledgements</u>: Dragan Ilic (Monash University), Jennifer Cleland (Nanyang Technological University), Jessica Mitchell (Western Sydney University), Michelle You You (Peking University), Terry Haines (Monash University), Wendy Hu (Western Sydney University)



# Is cost a barrier to HPE?

... tuition

... selection

... attendance



# Is cost a barrier to HPE?

... tuition

... selection

... attendance

NOTE: All costs converted to USD unless otherwise indicated



# Is cost a barrier to HPE? ... tuition



Federal Government sets national prices for degrees

- Different for postgraduate courses
- Different for private universities (not common)

Course	Student contribution	Government contribution	% student	Total student \$ for degree
Nursing				
Allied Health				
Medicine/Dentistry				



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Course	Student contribution	Government contribution	% student	Total student \$ for degree
Nursing	\$2,915			
Allied Health	\$5,868			
Medicine/Dentistry	\$8,342			



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Course	Student contribution	Government contribution	% student	Total student \$ for degree
Nursing	\$2,915	\$11,996		
Allied Health	\$5,868	\$9,781		
Medicine/Dentistry	\$8,342	\$19,934		



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Federal Government supported place, ~90% of domestic medical students in 2021 [1] + likely similar for other degrees



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Course	Student contribution	Government contribution	% student	Total student \$ for degree
Nursing	\$2,915	\$11,996	20%	
Allied Health	\$5,868	\$9,781	37%	
Medicine/Dentistry	\$8,342	\$19,934	30%	

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Federal Government income contingent loan (up to \$75k) with indexation only



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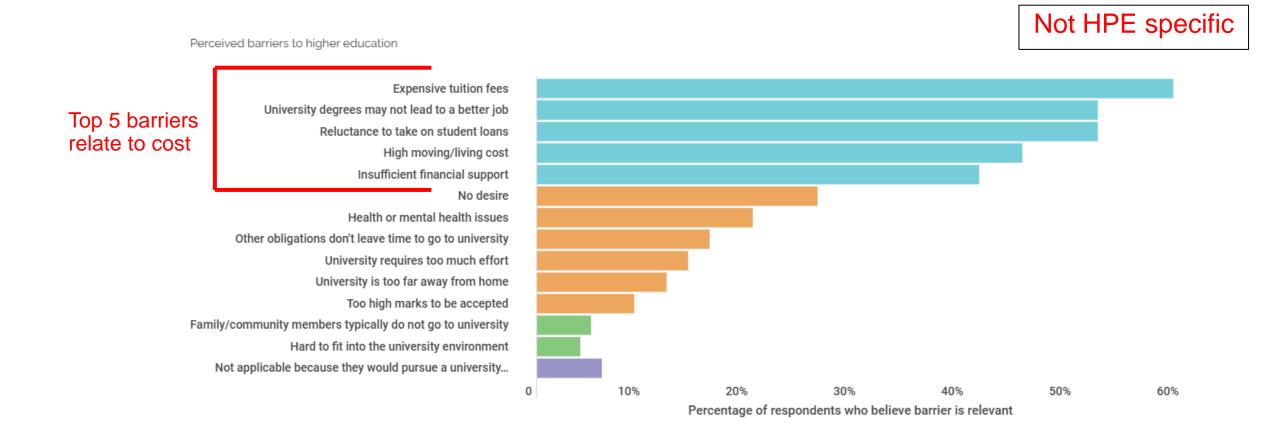
Most students do not pay any tuition until after they graduate and commence working

Federal Government supported place, ~90% of domestic medical students in 2021 [1] + likely similar for other degrees

Federal Government income contingent loan (up to \$75k) with indexation only



#### Barriers to study identified by those aged 20s-30s, 2023.





#### **Job Ready Graduates policy (2020)**

Policy initiative to use tuition price as a driver to direct applicants towards careers in demand

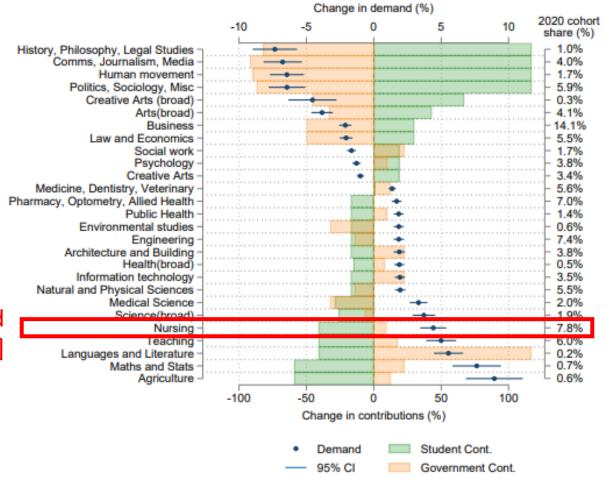


#### **Job Ready Graduates policy (2020)**

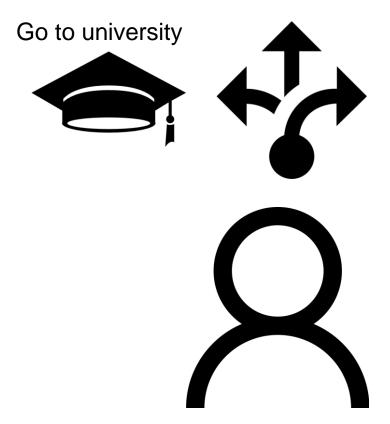
Policy initiative to use tuition price as a driver to direct applicants towards careers in demand

~40% reduction in nursing student fees, resulted in 4% relative increase in nursing applications [1]

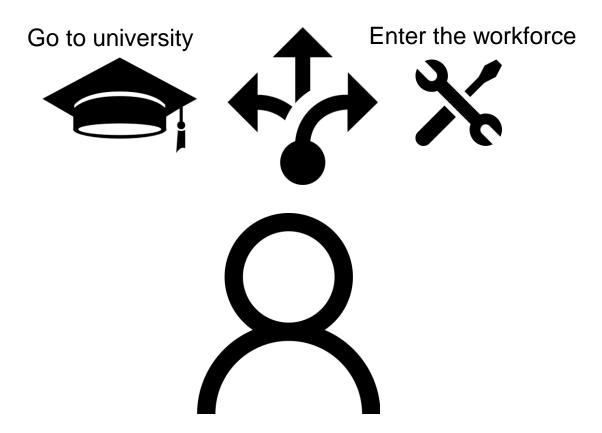
Figure 4: Estimated Effects of the JRG Reform on Applicant Preferences



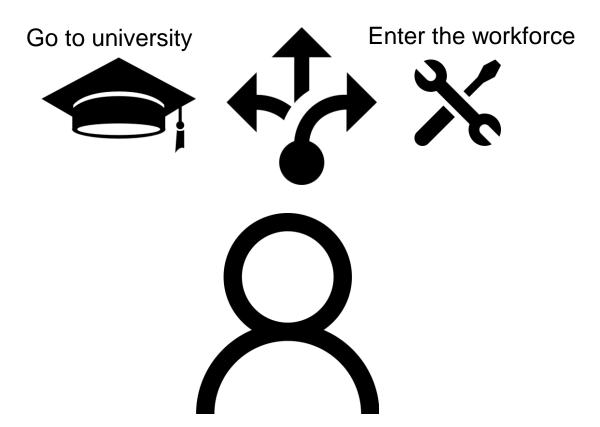


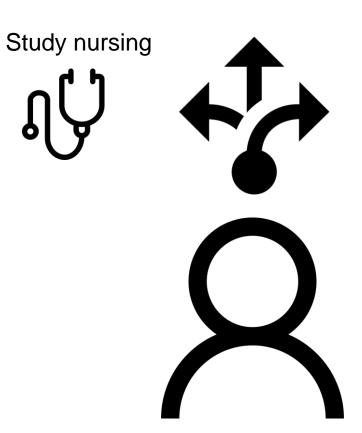


Enter the workforce Go to university

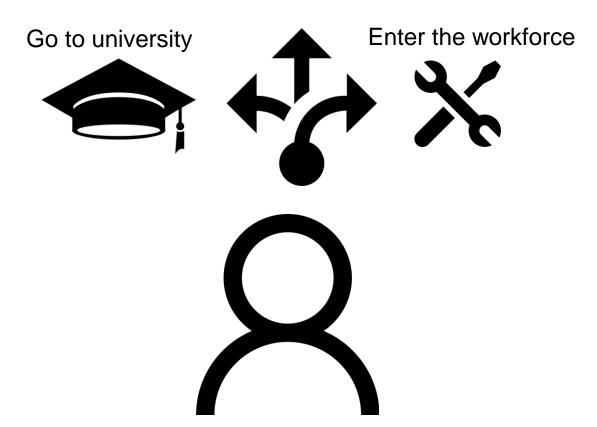


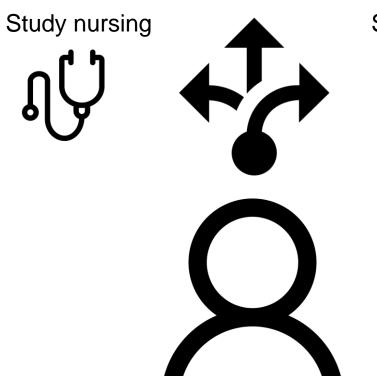








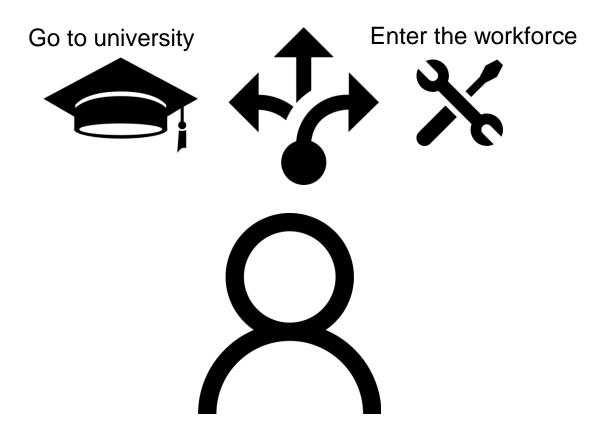


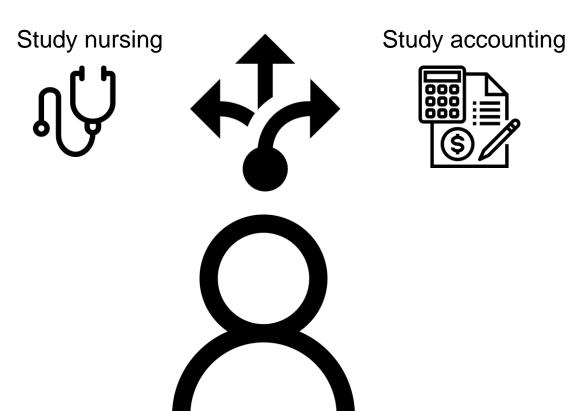


Study accounting









Cost of tuition potentially very small influence on selection of HPE



# Is cost a barrier to HPE? ... tuition ... selection

#### **Selection process costs**

Largely affects medical programs

- Aptitude test costs
- Preparation materials/courses
- Travel cost (including commuter travel, flights, and accommodation)
- Candidate time
- Parents/guardian time



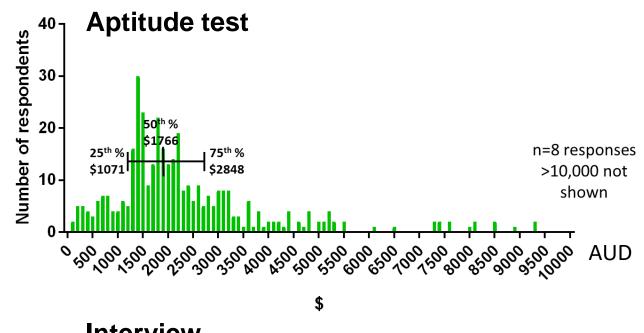
#### **Selection process costs**

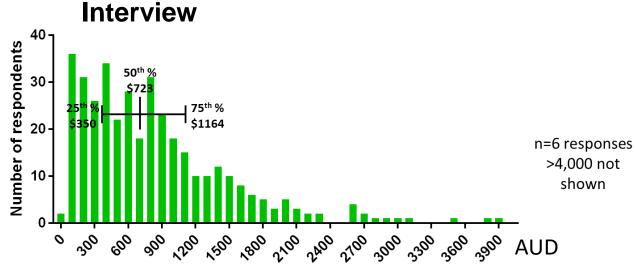
Largely affects medical programs

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- Travel cost (including commuter travel, flights, and accommodation)
- Candidate time
- Parents/guardian time

Monash University undergraduate medical degree:

- Aptitude test median: AU\$1,766 (USD 1,113)
- Interview median: AU\$723 (USD 455)







#### **Selection process costs**

Selection process costs unlikely to be a significant direct barrier:

- Actual test costs are negligible and once-off (\$150-350)
- May be an indirect barrier due to applying to fewer schools & being less prepared
- Impact likely outweighed by other factors such as broader impacts of SES on academic achievement, low self-efficacy, lack of an academic home environment, and lack of information about HPE careers/application processes



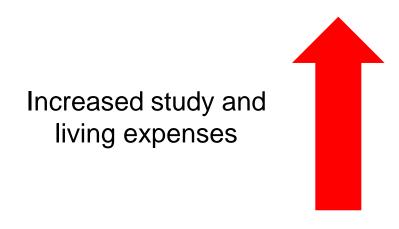
# Is cost a barrier to HPE?

... tuition

... selection

... attendance





# **Cost of attendance**

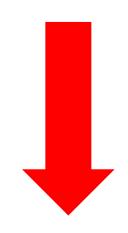


Decreased opportunity to generate revenue while studying





# Cost of attendance



Decreased opportunity to generate revenue while studying

#### Unique to HPE:

- Substantial number of contact/study hours
- Substantial volume of placements
- Block teaching / inconsistent schedules



**Table 1.** Disciplines and typical hours required of professional placement.

Profession	Hours required to graduate
Medicine <sup>A</sup>	2310
Occupational therapy <sup>B</sup>	1000 minimum
Psychology <sup>C</sup>	1000 minimum
Social work <sup>D</sup>	1000
Dentistry <sup>E</sup>	1260
Dietetics <sup>F</sup>	800
Nursing <sup>G</sup>	800
Physiotherapy H	750–1368
Teaching (undergraduate)	560
Teaching (postgraduate)	420

41% had to give up or significantly reduce employment to attend placement, resulting in significant financial stress [1]

**Table 1.** Disciplines and typical hours required of professional placement.

Profession	Hours required to graduate
Medicine <sup>A</sup>	2310
Occupational therapy <sup>B</sup>	1000 minimum
Psychology <sup>C</sup>	1000 minimum
Social work <sup>D</sup>	1000
Dentistry <sup>E</sup>	1260
Dietetics <sup>F</sup>	800
Nursing <sup>G</sup>	800
Physiotherapy H	750–1368
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Accommodation for placement

Travel to/from placement

- Access to appropriate transportation
- Travel tolls
- Parking fees

Uniforms

Equipment

Childcare

Rent/mortgage on primary residence

Loss of income [1]

- Overall higher contact hrs during placement
- Requirement to change location
- Requirement to change timing of work
- Potential for irregular placement hours [2]



Accommodation for placement

Travel to/from placement

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**Uniforms** 

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Loss of income [1]

- Overall higher contact hrs during placement
- Requirement to change location
- Requirement to change timing of work
- Potential for irregular placement hours [2]

Table 4. Placement expenses and food insecurity (all	costs iii AODJ.
Variable	Health students
	n = 343
	n (%)
Placement-related accommodation expenses (excludes rent,	/mortgage payments)
Estimated total cost per week [Median (IQR)]	100 (15–300)
Estimated total cost for last placement [Median (IQR)]	490 (100–1687)
Total costs (includes rent/mortgage payments and lost inco	me)
Estimated total cost per week [Median (IQR)] <sup>A</sup> USD 18	3 290 (100–660)
Estimated total costs for most recent placement <sup>A</sup>	1500 (600–3453)
Food security	
Prevalence	
Food secure <sup>B</sup>	63 (21.1)
Food insecure	235 (78.9)

Placement expenses and food insecurity (all costs in ALID)



Federal Government student support allowance, living out of home = \$209 p/w

Table 4. Placement expenses and food insecurity (all costs in AUD). Variable Health students n = 343n (%) Placement-related accommodation expenses (excludes rent/mortgage payments) Estimated total cost per week [Median (IQR)] 100 (15-300) Estimated total cost for last placement [Median (IQR)] 490 (100-1687) Total costs (includes rent/mortgage payments and lost income) **USD 183** Estimated total cost per week [Median (IQR)]<sup>A</sup> 290 (100-660) Estimated total costs for most recent placement<sup>^</sup> 1500 (600-3453) Food security Prevalence Food secure<sup>B</sup> 63 (21.1) Food insecure 235 (78.9)





# Cost of attendance



Decreased opportunity to generate revenue while studying

- Government allowance unlikely to fully cover costs related to HPE (for the more disadvantaged)
  - Financial stress negatively affects student experience
- Lack of data about impact on course progression/completion/other important outcomes

