

# 2022 Graduate Stipend Committee Recommendations

March 15, 2022

GSC Stipends Committee



# Student Members of GSC Stipends Committee

## Presenters



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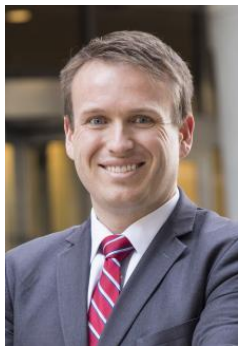


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Special thanks to: Ian Waitz, Suzy Nelson, David Freidrich

## **Stipend Recommendation History**

- Since 2008, GSC has estimated cost-of-living change
- Since 2019, GSC has estimated graduate living wage

## **Recent MIT Achievements**

- 3% increase to permanently raise student welfare
- Reductions in sub-living-wage appointments
- \$5,000 grant to student families (28% of living wage gap)

# Summary of 2022 Recommendations

We recommend a **7.4% stipend increase**

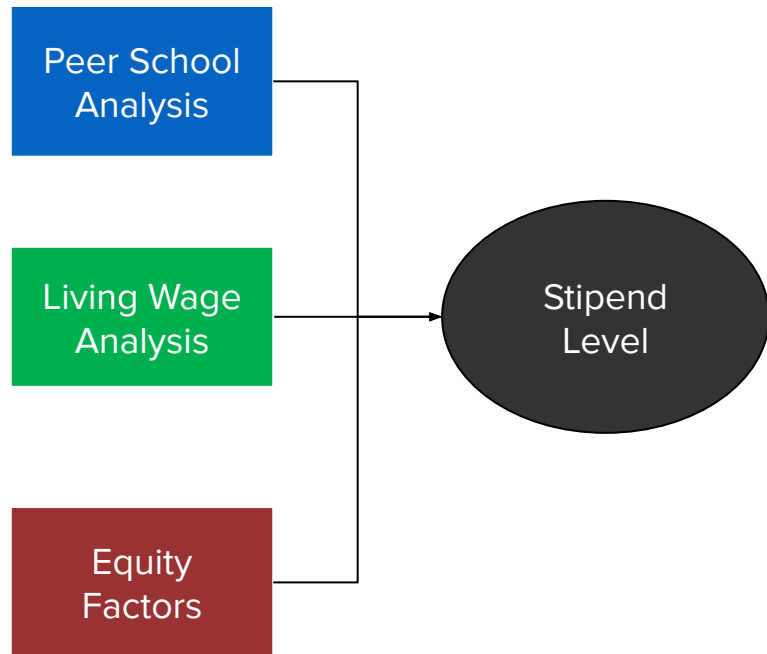
- Columbia (+**5.2%**), Princeton (+**11.8%**), & Stanford (+**13.2%**) are winning the offer letter competition
- **7.4%** is new students' one-year inflation exposure

## Policy Recommendations

1. Front-load support for first-year moving costs
2. Enhance Students with Children grant

# What Should Graduate Support Do?

1. Offer an **attractive funding package**
2. Keep **research costs competitive**
3. Cover **unavoidable costs** of working at MIT
4. Maintain **purchasing power** over time
5. Help students **most disadvantaged** by public policy



# Stipend Committee Assumptions

1. A **PhD 100% Research Appointment** is our baseline stipend measure
2. Stipend covers **expenses of a single, unpartnered student**
3. **Off-cycle 3% increase raised student welfare**, rather than offsetting 2022 inflation. (All analyses include this raise.)

Payouts are meant to “deepen the support our students need.”

– Provost Schmidt, *MIT News*

# Peer School Analysis



# Comparing Stipends across Schools

## 1. “Offer Letter” Approach

### Strengths

Admitted student perspective

Simple to construct

### Limitations

Omits on-campus rents, insurance, fee differences

Omits differences in funding guarantee and terms

## 2. Cost-of-Living “Parity” Approach

### Strengths

Enrolled student perspective

Superior measure of welfare

### Limitations

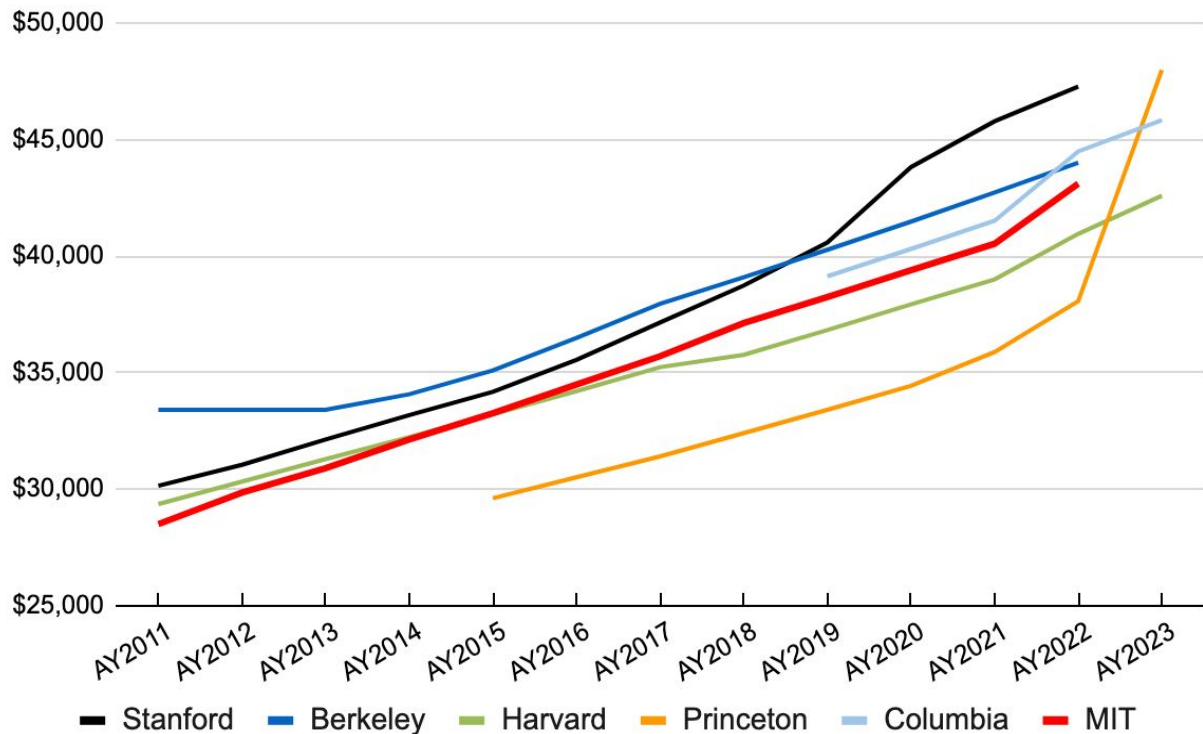
Omits all of the above

CoL indices designed for high-wage workers

Cannot capture student sub-markets (e.g. Palo Alto vs. San Jose)

# Offer Letters: Better at Stanford, Princeton, Columbia

12-mo PhD Research Appointment



Annualized Change

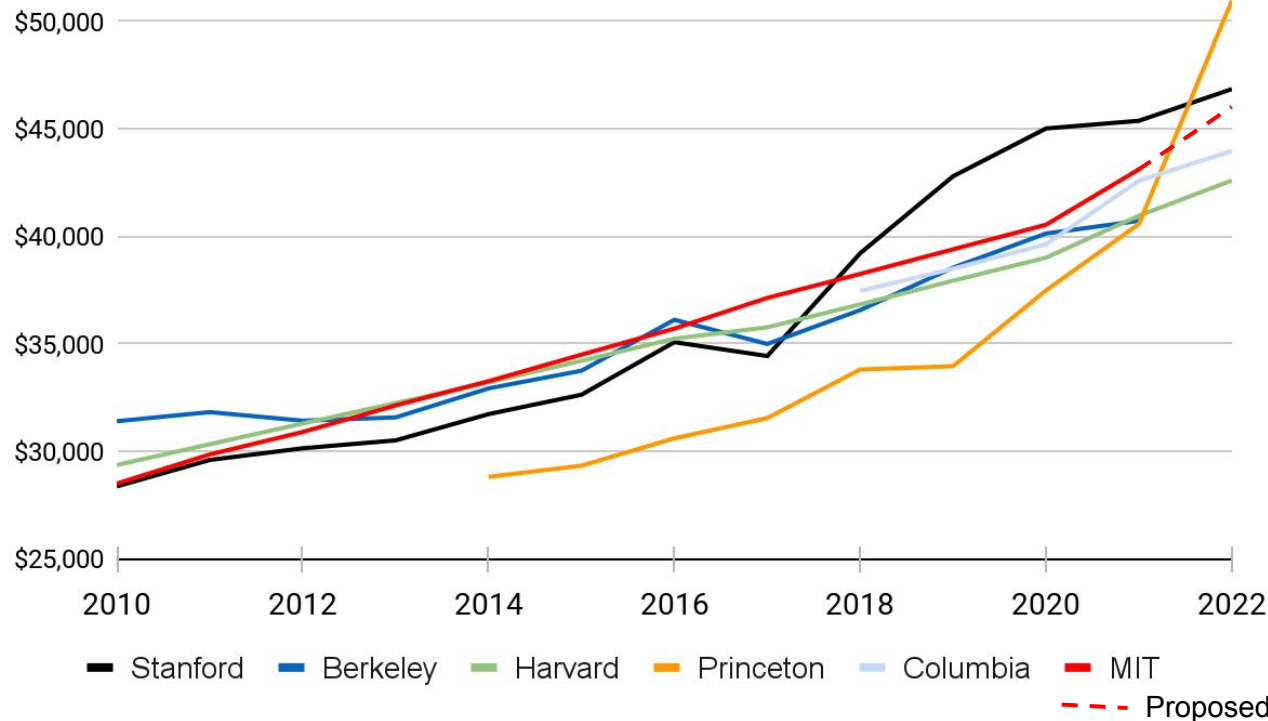
	1-yr	3-yr	5-yr
Princeton	26.1%	13.1%	9.3%
Stanford*	3.2%	5.5%	4.4%
MIT*	6.4%	4.2%	4.2%
Columbia	6.0%	4.1%	--
Harvard	5.0%	3.7%	2.9%
Berkeley	3.0%	3.1%	3.2%

\*No data for AY23; tracks AY17-AY22

# Parity Stipends: Princeton & Stanford Still Well Ahead

Boston-Equivalent Purchasing Power per Year

Adjusted by Regional Purchasing Parity (BEA)



MIT's AY22 parity stipend is:  
18.1% behind **Princeton** ('23)  
8.7% behind **Stanford\*** ('23)  
2.0% behind **Columbia** ('23)

Only **Berkeley** has lost purchasing power

\*If Stanford '23 increase matches '22 level (3.25%)

# Net Stipend after Transfers: On-Campus Single Student

	MIT No increase	MIT Proposed increase (7.4%)	Princeton Actual increase (26%)	Stanford Est. increase (3.25%)
Stipend AY22-23	\$43,112	\$46,302	\$48,000	\$48,816
Campus Housing <i>Avg 12-mo License Cost, AY21-22</i>	(\$17,326)	(\$17,326)	(\$12,900)	(\$19,321)
Health Care Plan <i>Non-subsidized Cost, AY22-23</i>	(\$0)	(\$0)	(\$0)	(\$0) <a href="#">100% subsidy announced</a>
Student Fees AY21-22	(\$368)	(\$368)	(\$0)	(\$180)
<b>Total</b>	<b>\$25,418</b>	<b>\$28,608</b>	<b>\$35,100</b>	<b>\$29,315</b>
<b>Diff. if no increase</b>			+ \$9,682	+ \$3,897
<b>Diff. if 7.4% increase</b>			+ \$6,492	+ \$707
<i>On-campus share</i>		38%	70%	75%

# Peer School Findings

- Most peer schools have steadily improved basic student welfare
- Announced 2022–23 increases (5%–26%) are the largest seen since 2002
- Nominal and real Princeton & Stanford stipends are 9–18% higher than MIT
- “Net” gaps are also widening. Stanford now [fully covers student healthcare](#).

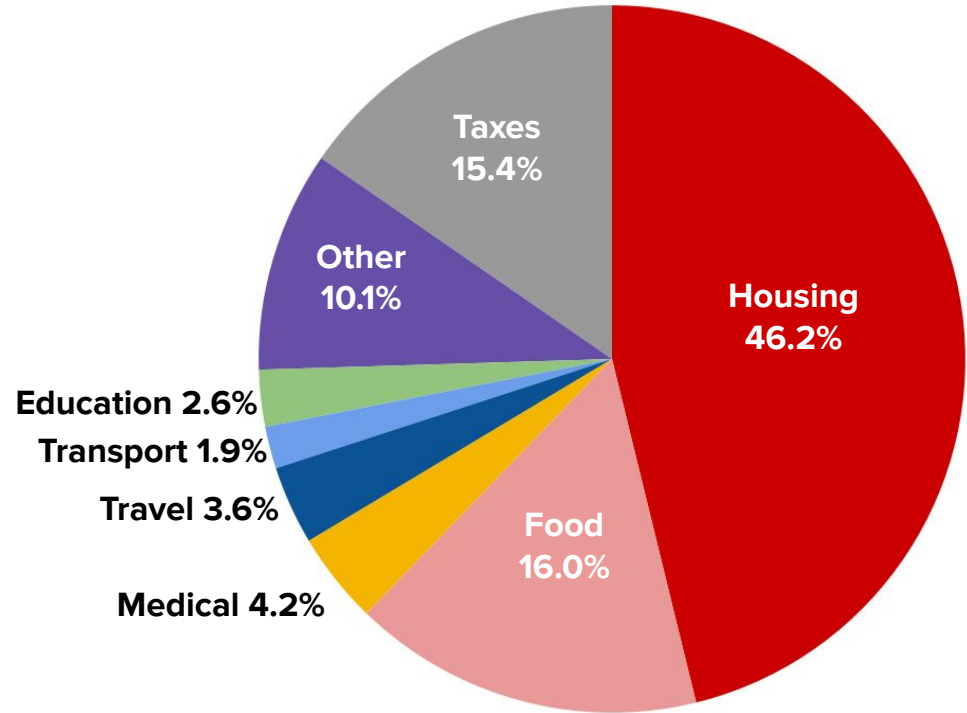
**Offer-letter gaps continue to widen.**

**Financial offers are our largest disadvantage in attracting admits.**

# Living Wage Analysis

# Measuring Grad Living Wage and Price Inflation

- Every 3–4 years, Institutional Research surveys cost of living
- In 2021, 32% of grad students shared monthly expense data
- Between surveys, GSC estimates cost with local inflation (CPI-U) weighted by consumption bundle
- We estimate distinct minimum costs for domestic/international and single/couple/family



# Grad Living Wage is Consistent

## Single-student living expenses

	17-18 CoL <b>Actual</b>	21-22 CPI <b>Forecast</b>	21-22 CoL <b>Actual</b>
Housing	\$ 14,504	\$ 17,240	\$ 17,261
Food	\$ 5,312	\$ 5,934	\$ 6,000
Medical	\$ 1,126	\$ 1,439	\$ 1,564
Travel + Transport	\$ 1,943	\$ 1,692	\$ 2,064
School + Other	\$ 4,037	\$ 4,511	\$ 4,743
Taxes	\$ 5,212	\$ 5,716	\$ 5,752
<b>Total</b>	<b>\$ 32,134</b>	<b>\$ 36,568</b>	<b>\$ 37,385</b>

Multi-year forecasts have uncertainty:

- Consumption bundles change
- Inflation is uneven by household

We reduce some error by using **MIT direct costs**: MIT insurance, campus rents, student fees.

Small model error is one reason for a **wage buffer above minimum level**.



# Grad Living Wage is Conservative

## Estimates for 1-adult household in Boston Metro

	<b>GSC</b> Survey	<b>MIT</b> Living Wage Calculator	<b>EPI</b> Budget Calculator
Housing	\$17,261	\$18,466	\$20,904
Food	\$ 6,000	\$3,690	\$4,200
Medical	\$ 1,564	\$3,048	\$4,104
Transport + Travel	\$ 2,064	\$4,332	\$8,748
School + Other	\$ 4,743	\$4,780	\$9,096
Taxes	\$ 5,752	\$5,563	\$10,560
<b>Total</b>	<b>\$ 37,385</b>	<b>\$39,879</b>	<b>\$57,611</b>
<b>Difference</b>		<b>+6.7%</b>	<b>+54.1%</b>

Compared to subsistence wage models, MIT students pay less for:

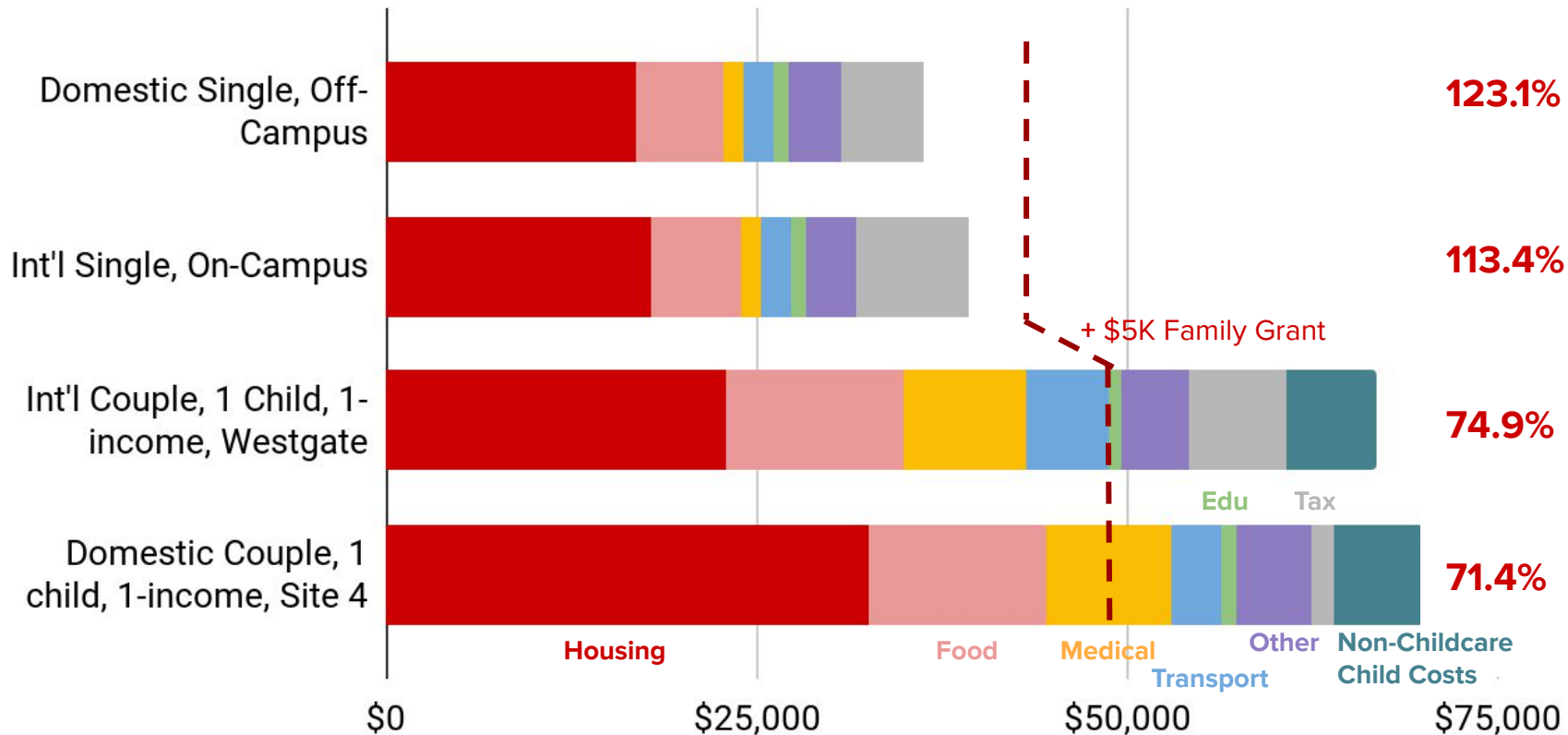
- Transport costs (mostly car-free)
- Medical care (health plan coverage)
- Housing rent (roommates)

But MIT students also:

- Eat some meals away from home
- Fly 1–2x per year
- Pay school fees and equipment costs
- Pay \$100/month for recreation
- Move to attend MIT

**We treat these as essential costs.**

# 100% Stipend: Living Expense Coverage Ratio



# Modeled Student Cost-of-Living Increase

## 2022 Benchmarks

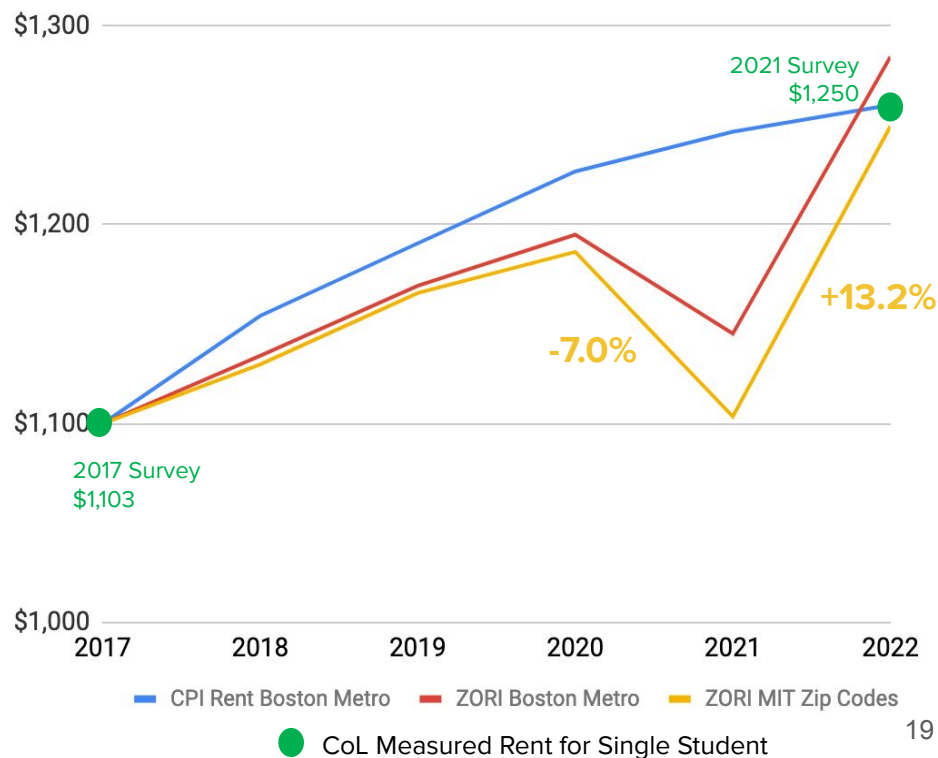
U.S. CPI-U	7.5 %
Boston CPI-U	6.3 %
SSA CoLA	5.9 %

## Student Differences

Less exposed to vehicle and energy inflation, but twice as exposed to food and rent inflation

Local market “asking rents” are v-shaped. CPI-Rent smooths change because households don’t move frequently.

## Inflating by CPI Rent Boston vs Zillow Asking Rents Index



# Cost-of-Living Adjustment for Single Student

	Standard GSC Method	Market Rent Method
2022 cost basis	2021 CoL survey	2021 CoL survey
Prior-year cost estimate	Local CPI trend from 2017 CoL Survey	Local CPI trend from 2017 CoL Survey
Prior-year rent index	CPI Boston Rent of Primary Residence	Market: Zillow Observed Rent Index (MIT student ZIP codes only)
Stipend increase for constant living standard	<b>5.5%</b>	<b>7.4%</b>

- Driven by 13.2% growth in off-campus asking rents
- On-campus housing (+3.4% avg increase) reduces inflation exposure
- As new renters, 2022 matriculants are more inflation-exposed
- Rent and food inflation have not leveled off in early 2022

# Equity Factors

# Who is Cost-Disadvantaged?

	Measurable Costs	Added Cost	Unmeasurable Costs
<b>International Students</b>	Added moving costs	\$2,000	Few off-campus housing options
	No standard deduction	\$1,765	Limited credit access
		<hr/> <b>\$3,765</b> <hr/>	
<b>Student Families</b>	Added rent, food, child expenses*	\$17,500	No attainable off-campus housing
	MIT insurance*	\$5,600	Int'l spouse work restrictions
	Childcare	\$24,300	Higher food insecurity
		<hr/> <b>\$47,400</b> <hr/>	

\*Costs above single student cost-of-living<sup>22</sup>

# Student Family Funding Gaps

## #1: Work Restriction

- Nonresident spouses cannot earn U.S. income
- Int'l families ineligible for federal child tax credits

## #2: Working Parent

- Middlesex County childcare costs are highest among surveyed U.S. counties<sup>1</sup>
- No MIT scholarship for grad student childcare

## #1: Costs above Single Student

Add'l On-Campus Rent*	\$5,500
Add'l Food	\$6,000
Add'l Medical/Dental	\$5,618
Child Costs (excluding childcare)	\$6,000
Child Tax Credit + EITC ineligibility	\$3,500
Child Grant	-\$5,000
<b>Added Family Cost</b>	<b>\$ 21,618</b>

## #2: Costs above Single Student

Scenario 1 costs	\$ 21,618
Add either:	
A. Private Childcare	\$24,300
B. MIT Childcare (Toddler Rate)	\$ 29,160
<b>Added Family Cost</b>	<b>\$45,918–\$50,778</b>

<sup>1</sup> 2018 ChildCare Aware of America

\*Additional rent is 1-BD Westgate apt above single-student weighted average on-campus rent

# Proposed Family Grant Enhancement

## 1. Need-blind base grant (Existing)

Cover MIT direct costs and some survival costs for child

**Goals:** Reduce destabilizing expenses. Afford health insurance, housing, food. Protect child/parent well-being.\*

**Recommended floor: \$6,500**

Up from \$5,000 to cover higher-than-expected food inflation

## 2. Need-based supplement (Proposed)

Covers family-specific policy disadvantage + idiosyncratic costs

**Goals:** Reduce severe hardship. Cover measurable resource inequities. Keep eligibility simple.

**Proposed supplemental eligibility: \$20,000**

Matches Stanford's recently announced need-based family grants

**Not fully covered under ceiling:** Childcare costs, Site 4 family rents



# Moving Costs

# Moving Costs: Rationale for Support

Graduate students face large, unavoidable expenses before their first paycheck

	Typical <u>Minimum</u> Costs	
[Incoming International Student]		
<b>Pre-Arrival</b>		
Travel and relocation expenses	\$ 1,200	} April–August
Visa and immigration fees	\$ 510	
Housing deposits + fees	\$ 1,615	
Additional insurance costs	\$ 400	
<b>Post-Arrival</b>		
Household furniture, appliances, etc.	\$ 300	} August–Sept 15
Vehicle purchase (e.g. bike)	\$ 0	
Food	\$ 220	
<b>Total</b>	<b>\$ 4,245</b>	
<b>First Paycheck</b> (net of withholding)	<b>\$ 1,571</b>	} Sept 15

# Financial Stress Indicators: 2021 CoL Survey

## Many students have NO savings buffer

**No** three-month emergency fund

**45%**

**No** contribution to savings in survey month

**43%**

[A higher percentage of international and URM students\* responded **No**]

## Implications for Moving Costs

- Moving expenses pose a large financial shock
- Higher for our most cost-disadvantaged students  
(international students & students with children)
- A relocation expense shock can stall degree planning, research training, and social integration

\*15-20% percentage points higher than non-URM U.S. resident students who responded 'No'

# Moving Costs Measured by Cost of Living Survey 2021

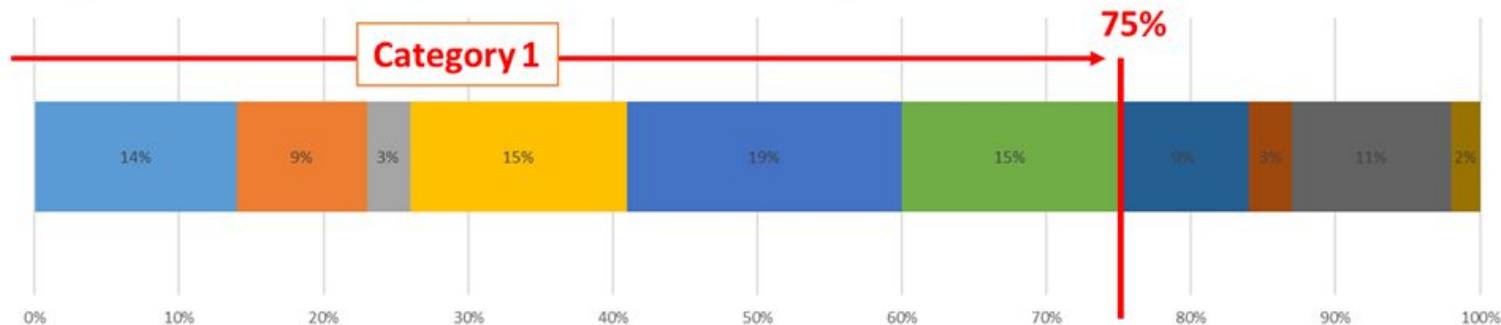
## Category 1

- Travel to MIT
- Moving costs
- Visa and immigration fee
- Housing (first/last/broker) fee
- Furniture, appliances, household setup
- Computer, laptop, tablet

## Category 2

- Insurance
- Additional medical and dental expenses
- Purchasing a vehicle (e.g. bike)
- Other one-time expenses

Percentage of Total First Year Annual Expenses for MIT Graduate Student Body



# Measured Median Moving Expenses

	non-URM, US Resident		<u>Added Costs for Cost-Disadvantaged Groups</u>	
	On-Campus	Off-Campus	International (on campus)	Students with Children (on & off-campus)
<b>Category 1</b>				
Travel and Moving	\$ 3,515	\$ 4,950	\$ 2,114	\$ 1,780
Visa/Immigration				
Housing Fee				
Household Setup				
Computer				
<b>Relocation Expenses</b>	<b>\$ 3,815</b>	<b>\$ 6,300</b>	<b>\$ 3,200</b>	<b>\$ 3,795</b>
(including category 2)				

Moving costs are higher for off-campus residents  
(last month rent/ leasing fee, and household setup)

International students and students with children face  
higher relocation costs

For international on-campus students vs non-URM, US on-campus students  
For students with children vs students with no children

# Peer School Comparison: Relocation Grants for Graduate Students

Peer schools\* don't guarantee relocation cost coverage. However:

- Some individual departments offer relocation grants
- Students can negotiate relocation costs with their labs/PIs
- Peer schools guarantee five-year funding to most incoming PhD students

## Existing Relocation Grant Programs

School/Department	Amount	Structure
Boston University Graduate School	\$2,500	Need-based grant for US citizens 5-year funding guarantee
U of Michigan Dept. of Sociology	\$ 2,500	Total grant amount of \$7,500 for multiple uses 5-year funding guarantee
Stanford Cash Advance Program (0% Interest Loan)	\$ 1,000-3,000/ quarter	0% Loan To be repaid within 45 Days

30  
\* Harvard, Stanford, Cornell, Princeton, Columbia, Caltech

# Recommendation for Relocation Cost Coverage & Grant

## Purposes:

- Reduce financial stress at program start, especially for most cost-disadvantaged groups
- Promote graduate student welfare, and immediate focus on education and research
- Bolster MIT's graduate offer letters

### Advance Paycheck

- Early access to stipend/paycheck for first month of enrollment

### Interest Free Cash Advance

- 0% Loan program offered to registered, incoming students
- Up to \$ 4,500, to be paid back by end of semester

### One-Time Relocation Grant

- Tiered grant structure, providing different amounts to international and US residents

Combination  
covers measured  
moving expenses  
and first-month  
living expenses

# One-Time Relocation Grant for Incoming PhD Students

- Recommend that combination of grant and advance paycheck helps cover a significant portion of unrecoverable moving costs [Category 1]
- Tiered grant structure:  
**International/Student Families: \$ 4,500**  
**Domestic: \$ 2,500**
- Access to funds:
  - Ideally possible once pre-registered with MIT
  - For US-based students, direct deposit is viable
  - For international students, provide both check and direct deposit options

## Expenses covered by recommended grant amount

- Visa/Immigration fees
- Travel and moving costs
- Unrecoverable leasing fees
- Basic household furnishings and appliances
- Computer/laptop purchase

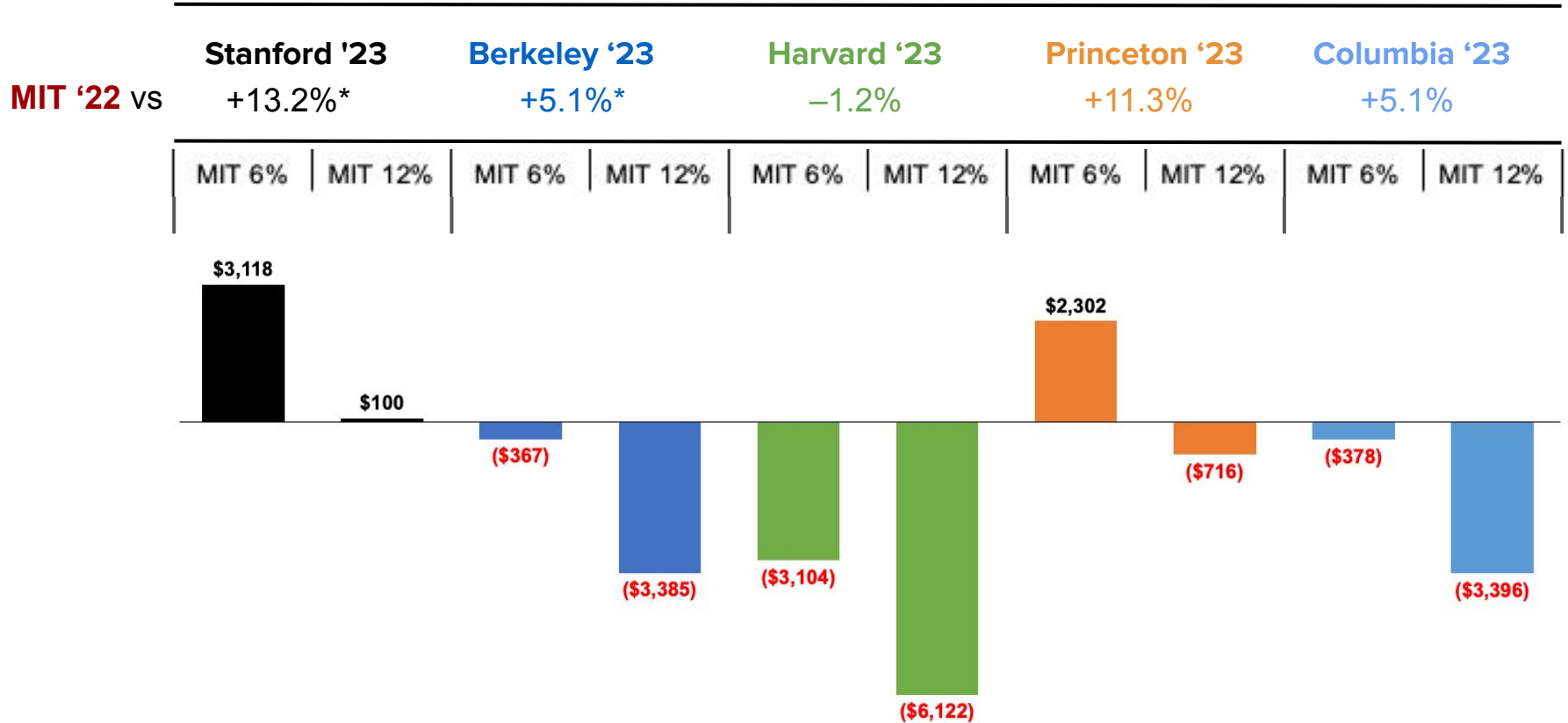


# Supplement

# How Do We Choose Peer Schools?

1. **Peer Market:** R1 universities in high-cost rental markets
2. **Admissions competitor:** Competes with at least one MIT school for admitted students
3. **Wage competition:** Has 100% RA stipend historically or currently competitive with MIT stipend
4. **Data availability:** Universities (or relevant school units) must publish annual stipend schedule

# Offer Letters: Closing Gaps with 6% or 12% Increase



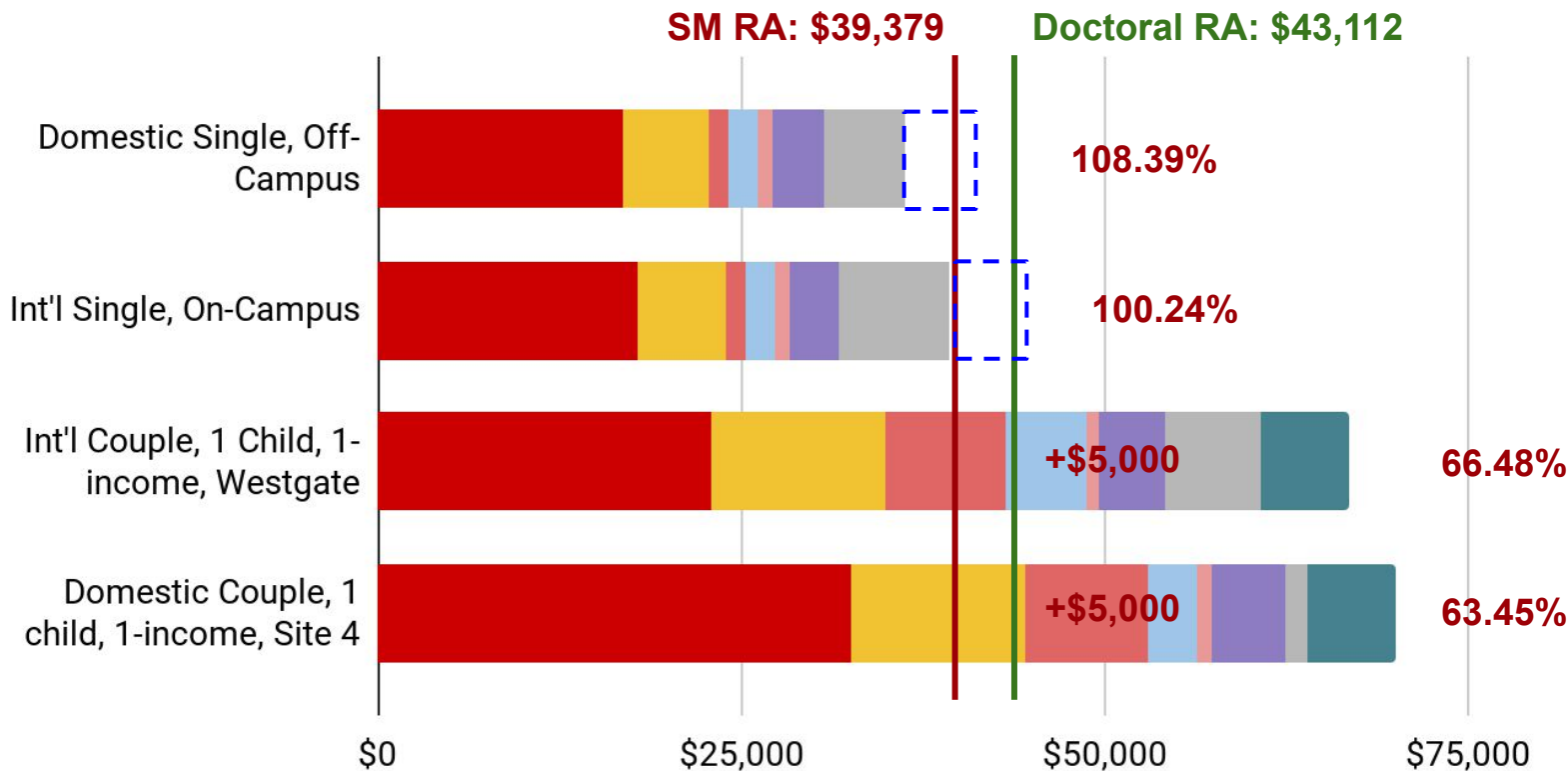
\*If '23 increase matches '22 increase (3.25% Stanford, 3.0% Berkeley) 35

# Cost of Living Survey Design & Adjustment Methods

Item	Basis	Adjustment
Off-campus rent	2021 CoL	CPI-U Boston Rent of Primary Residence
On-campus rent	MIT	Weighted average annual HRS rent roll
Medical Insurance	MIT	Annual insurance premia
Uncovered medical	<a href="#">'20 BLS CES</a>	CPI-U Boston medical services
Local Transport	2021 CoL	CPI-U Boston transportation + discounted monthly MBTA fare rate
Travel	2021 CoL FY	CPI-U National airline fare
School expenses	MIT + CoL	MIT annual student fee, CPI-U Boston educational services
Other	2021 CoL	Applicable CPI-U Boston indices
Childcare	2021 CoL	CPI-U national childcare (no local index)
State taxes	DoR	Marginal income tax rate schedules
Federal taxes	IRS	Marginal income tax rate + major deductions and credits

- Survey conducted after Fall '21 return to in-person operations
- New module on moving costs
- All values calculated from student median

# SM Stipends don't cover 110% of CoL in any case



# Non-terminal Master's students experience more stress

	Master's	Doctoral
Cut back on spending for food	66%	58%
Went hungry	13%	9%
Applied for government assistance	5%	1%
Took out a loan they didn't anticipate when starting the program	11%	2%
Contributed money to savings in previous month	28%	51%