Report on the ZIP (Zero Interest loan) Loan Program
Provost's Leadership Academy 2022-2023

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Overview and charge

A new Zero Interest Supplemental Home Loan Program (ZIP) had its pilot year for the 2022-23 faculty recruitment year. Our PLA group was charged in December of 2022 to review both the prior use of the Faculty Recruitment Allowances (FRAs) and the newly announced Zero Interest loan (ZIP) program that provides newly recruited faculty with financing assistance to purchase a home. We were charged with making "recommendations regarding use of the two programs, specifically with respect to purchasing homes in the University Hills vs. the local community and on how to ensure that there are funds available for the program and that they are distributed equitably." As the university seeks to create a more transparent and equitable distribution of resources for our new faculty and to create access to housing opportunities, our PLA group was charged with making recommendations regarding the future use of the FRA and the new ZIP loan programs.

Challenges in the UCI Housing Ecosystem

There are a number of existing challenges that the transition in funds from the Faculty Recruitment Allowance (FRA) to ZIP loan could potentially address within the UCI housing ecosystem.

Prior to the ZIP, many newly-hired faculty were offered a Faculty Recruitment Allowance (FRA), which provides financial support for full-time university appointees to be distributed within the first two years of their qualifying appointment. FRA can be used for housing or to offset childcare costs, tuition, or other similar expenses. FRA has been a recruiting incentive in many Schools at UCI, but allocation of the funds has been unequal among different units on our campus. Between 2019-2022, the average FRA was $49,940 and the range was $25,000 to $83,000 across schools. Distribution of FRAs has been skewed toward new faculty in STEM schools, who receive a larger standard amount of set up funds per new FTE and FRAs have been made available to some, but not all faculty to purchase homes. Figure 1 shows a total dollar amount of FRA in all Schools in the past three academic years. The following schools benefited most from this program: Medicine, Biological Sciences, Engineering, Humanities, ICS, Physical Sciences, and Public Health, while the Schools of Arts, Business, Education, Law, the School of Pharmaceutical Sciences, Social Ecology and Social Sciences received either no funds or the amount was significantly lower than in other Schools. The inequality is also pronounced when we look at the fraction of new faculty that received FRA (Figure 2) at each School. Again, a similar pattern of schools that benefited most and least can be observed.

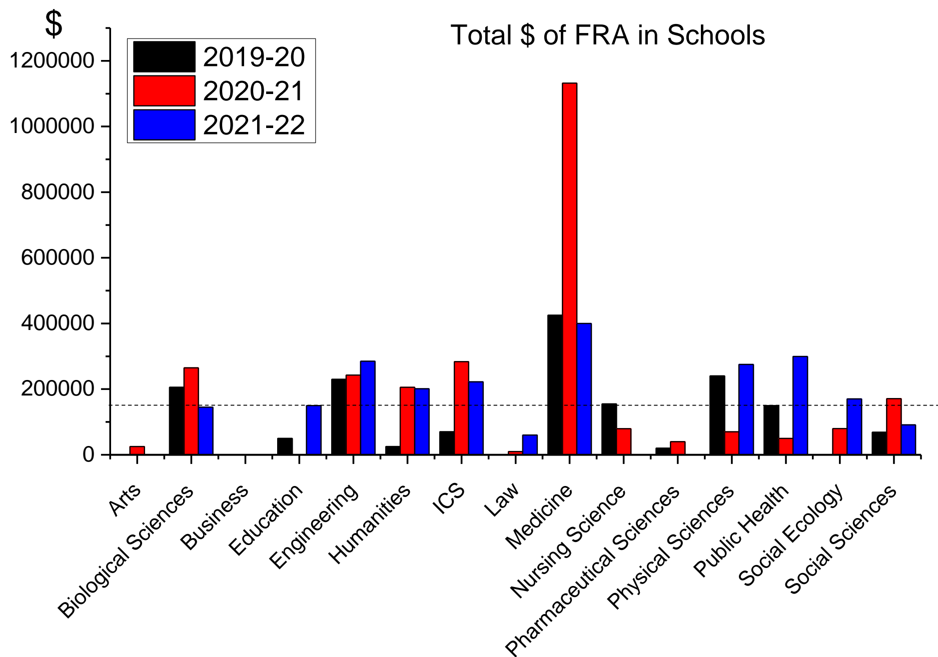

Figure 1. Distribution of FRA funds in all schools at UCI in the past three academic years. Note that the FRA program was suspended in the academic year of 2022-2023 when the ZIP loan was introduced and offered to all new incoming faculty. The dashed line shows average between all schools and three academic years.

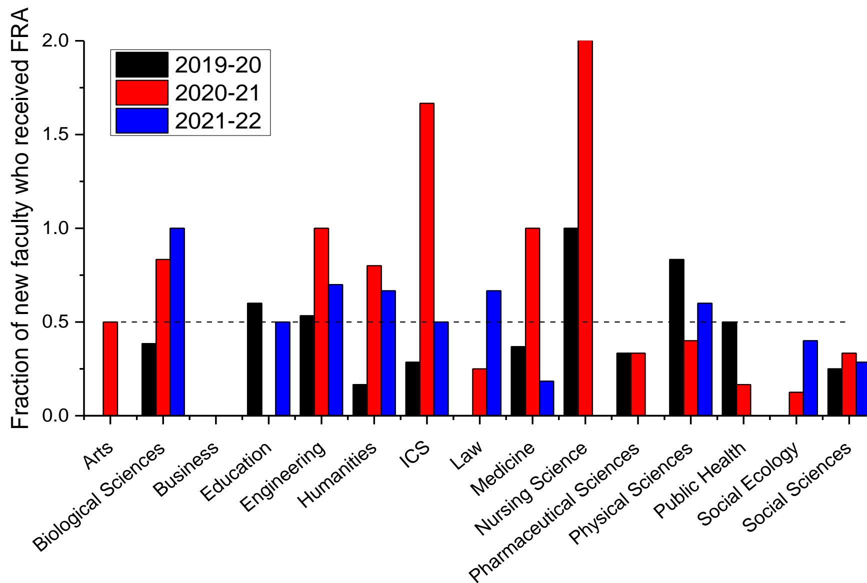

Figure 2. Fraction of new-hired faculty at each school that received FRA. Fractions larger than one might indicate that FRA was used for retentions.

In addition to the issue of equity in how the FRA funds have been distributed, there are additional challenges in the UCI housing ecosystem that the ZIP loan might address. First, the funds allocated to FRA are not fully utilized, because the whole FRA amount becomes a taxable income such that a large fraction is lost due to taxes. Second, the housing prices in the surrounding areas are high, restricting faculty's ability to purchase a home. In Irvine, the average price per square foot of a house is $660, which is twice the price of homes in University Hills. Prices in other surrounding areas are lower, but are located in areas with additional taxes or with less desirable schools. See Appendix 1 for analysis of average house prices. Finally, incentivizing new faculty to search housing outside University Hills is a necessity due to the current waitlist for the campus housing reaching a historically large length. An increase in the size of the faculty at UCI, along with the dramatic increase in home prices on the open market, and the reduction in new University Hills homes being built due to limitations of available land has created a demand for access to University Hills homes that has significantly outstripped supply in recent years. The current waitlist for University Hills is 210 for assistant professors, some hired as far back as 2019, with the total number of faculty and other qualifying employees reaching over 500. With 60-70 new hires each year, the wait list situation is expected to get worse.

Overview of the ZIP Loan Program and 2022-2023 Pilot Year

The ZIP (Zero Interest Supplemental Home Loan Program) loan was introduced by the UCOP Office of Loan Programs in 2022. Unlike the FRA funds, the ZIP loan is designated only for use in purchasing a home. It provides secured secondary financing with no monthly payments and zero percent interest to assist eligible senate faculty with a down payment towards purchase of a home. The ZIP loan's principal can be forgiven at 10% over a 10-year period, provided that the eligible faculty member meets specified conditions. Loan recipients are only taxed on the forgiven portion of the loan that year. The minimum amount of the ZIP is $10,000 and the maximum is $150,000. The ZIP loan can only be used towards a down payment and can be combined with other UCOP loan options, such as the Supplemental Home Loan Program or UC Mortgage Origination Program (MOP) loan. There is no central funding for the ZIP loan program; campuses must provide their own funding sources.

The UCI Provost's Office initiated a pilot program for the ZIP loan in 2022-2023. There were no FRAs offered in this year; instead, all new recruits were offered a ZIP loan with the condition that the loan be used for purchase outside of University Hills within four years of starting employment. The standard ZIP loan offer was $78,900, which aligns with the current FRA maximum that does not require exceptional approvals. All recruits remained eligible to purchase homes in University Hills. There was only one newly hired faculty member who used the ZIP loan to purchase a home during the pilot year.

Approach & Data sources

We drew on a variety of data sources to address the questions of the charge. We looked at past FRA use by school, focusing on data from the last three years paying attention to how usage and amounts vary by discipline and in relation to the FTE funding given by the Provost. We looked at ZIP loan models from other UC campuses such as UC, Santa Cruz. ICHA provided survey data, including how many people could afford buying a house at a given price point. The UC MOP loan provided data including applicants' household income, loan eligibility, survey results, and waitlist information. Finally, we reached out individually to Deans and Chairs in different schools, to gain a cross-campus administrative-level perspective on ZIP as a recruitment tool. Since FRAs have been distributed primarily by Deans, we developed a series

of questions to share with our respective Deans. The questions included: (i) Will ZIP affect their ability to recruit new faculty? (ii) How will ZIP affect retention? (iii) Are there resources to supplement the current approved amount of ZIP? (iv) Should FRA remain as an option?

Program Impact Simulations

We created a set of simple simulations to anticipate the "impact" of the ZIP loan program on faculty home purchases and effect on the University Hills waiting list in the coming year. See Appendix 2 for the full simulation report. Important degrees of freedom in these simulations include:

- An assumption that there is **~ $2 million per year** from the Provost's office for the ZIP loan that is taken from funds that were previously offered to faculty via FRA mechanisms. This was calculated from the amount of FRA provided between 2019-2022.
- To anticipate maximum uptake (e.g, who we think could afford a home on the outside market), we have focused heavily on the distribution of loan capacities amongst faculty within the MOP database (based on borrower or household income).
    - We use the current MOP requirement of 5-10% down payment, the current loan interest rate of 3.25%, and the requirement that the loan not exceed 40% of the debt/income ratio.
- We used current home prices in Irvine to estimate the cost of purchasing outside of University Hills. The price per square foot is $644 (based on last 3 months of home sales in February 2023); thus, a 2000 sq. foot home in Irvine is ~$1.3 million.
- We also consider the number of newly hired faculty in any given year, which we assume will be between 60-70.
- And last, the amount available to faculty via ZIP loan, which we assume is the current $78,900 set for the pilot program.

Recommendations

1. Will the ZIP address some of the issues around availability of funds (equity) and campus-level usage that were present with the FRA?

The ZIP program is more "equitable" in the sense that it will be offered to everyone, whereas the FRA was offered with wide variation across Schools on campus. But the impact of the ZIP will differ across faculty by their household financial resources. The ZIP is a downpayment program; the main considerations in housing affordability are not only the down payment but also the monthly mortgage and property taxes. The ZIP loan will have the most impact for those who can afford a home outside of University Hills (based on their household income) and is facilitating/expediting their home purchase. Another equity consideration is that the ZIP pilot amount is currently set at $78,900. If the ZIP program in its permanent form could be supplemented by the Deans (either by adding to the ZIP loan amount to bring the total amount to the maximum allowable $150,000 OR by including FRA alongside the ZIP), schools that are able to supplement the ZIP loans are probably those that were using the FRA funds in the past because of higher start up packages from the Provost. The ZIP uptake and impact may thus re-create some of the FRA patterns.

2. Can faculty purchase a home outside of Uni Hills using the ZIP loan?

The ZIP loan covers approximately 5% of the downpayment of a home that is 1.3 million in Irvine. If we assume the remaining downpayment is covered by the Supplemental Home Loan, this translates to a $5600 monthly mortgage. When including taxes and insurance, the monthly costs rise to $7049. According to the MOP loan data, there are 39% of faculty who can qualify

for a loan of this size based on their household income. This consideration is purely based on household income, which represents the upper bound of uptake. When we consider *self-reported affordability,* the uptake percent goes down considerably. A survey conducted by the Zonda company of faculty on the ICHA waitlist showed that less than 7% of people said they could afford a $6000 monthly mortgage. We use these two data points as the bounds of potential uptake and assume that 7-39% of incoming faculty can afford the monthly mortgage of an 2000 sq. foot average home in Irvine after using the ZIP loan for a portion of their down payment.

3. Should the ZIP loan be used for non-UniHills homes only?

Yes, the ZIP loan should be used to buy homes outside of University Hills only. This helps alleviate the excess demand issue at UHills. In addition, it can potentially influence faculty's preference over the longer run through peer effects or information sharing, i.e., if some faculty start to live outside of UHills, more will follow in their footsteps. In contrast, it is not necessary to incentivize faculty to buy UHills homes; these homes are already in high demand partly due to their greater affordability. The home price per square foot is $325-$375, making the average 2,000 sq.foot house in University Hills $700,000 with $3046 monthly mortgage ($3888 including taxes and insurance). Approximately 80% of the MOP loan applicants can afford that home price based on their household income. According to the Zonda survey, 47% of faculty on the ICHA waiting list reported that they could afford that monthly mortgage.

4. Who should the ZIP loan be offered to (newly recruited faculty or past hires or retentions)? And how should it be implemented to maximize usage while balancing equity concerns?

We recommend the ZIP loan to be offered to newly recruited faculty first because of the limited availability of funds. Based on the income data and the average home price in Irvine (about 1.3 million), we calculate that 7% to 39% of the newly recruited faculty can afford a house outside of the Uhills. The upper bound estimate comes from the MOP loan data on household income and the lower bound estimate comes from the survey of faculty on the ICHA waiting list. If 39% (the maximum fraction) of 70 newly-hired faculty (the maximum number of newly hired faculty) take the ZIP loan of $78,900, the total amount would be $2.15 million. This is higher than the total amount ($2 million) used in the past for FRA, but we expect the funds to be underutilized by newly recruited faculty. Some faculty may strongly prefer to live in Uhills and hence would not respond to the moderate financial incentives (we have no information on this). If there are excess funds, the university may consider increasing the ZIP loan amount in the next few years to maximize the incentives. Some of the excess funds can also be used for retention offers. One Dean found the housing problems to be most acute among faculty who have been at UCI for a few years (and still have not found a house) and not among newly-hired faculty. These faculty may have growing families and have become frustrated with their housing situation. The ZIP loan can be used to retain older faculty and keep them from looking for other positions.

5. How much pressure could this program relieve from the UniHills waitlist?

The UniHills waiting list is projected to grow in the years ahead. Historically, 70% of new hires joined the list and two-thirds of those people left through lotteries for new houses. The list is presently 500 faculty and staff, with 210 Assistant Professors, some of whom have been on the list for four years. Some will leave through the planned final new construction (Los Trancos), which will add 210 units. However, this will serve only as a temporary aid because 100% of the 60–70 new annual faculty hires now join the list.

Based on our estimates, we expect 4 to 27 of the 70 newly recruited faculty each year can afford a home outside University Hills. The upper bound estimate comes from the MOP loan

data on household income and the lower bound estimate comes from the Zonda survey of faculty on the ICHA waiting list. It is these high-earning households who have the greatest likelihood of employing a ZIP Loan for a down payment. However, these hires are also a cohort that are likely to eventually be able to afford a down payment without any assistance. Therefore, the ZIP program may primarily serve as an accelerant for a modest number of high-earning households to purchase in the outside market. The remaining hires (33–66) who cannot afford an outside-market mortgage are unlikely to take advantage of the ZIP program and therefore will add to the UniHills waiting list. We therefore conclude that the program will have only a modest effect on the length of the waiting list.

If the goal is to reduce the waiting list in University Hills, there are other possibilities to expand the program's impact. For instance, if the ZIP loans were opened to senior faculty living in University Hills to purchase a home outside the neighborhood, this could lead to more resale homes for newly-hired faculty. While the ZIP loans would not be used for recruiting purposes, this could create secondary effects in the University Hills housing market that could indirectly benefit newly-hired faculty.

6. Should we keep the FRA in any capacity? And what are the implications of continuing the FRA on the original existing problems before the ZIP loan?

The flexibility in the administration of the FRAs presents some advantages over the ZIP Program. FRAs may be applied towards the mortgage of a UniHills house, used to pay off student loans, or merely to provide a signing bonus for new hires. However, these awards are taxable and may not help alleviate the UniHills waitlist. In spite of these disadvantages, we recommend FRAs remain an option to assist with the recruiting of new faculty. The Deans and Chairs prefer the flexibility of having both the FRA and ZIP loan when recruiting new faculty. The ZIP program is extremely limited in its scope; it can only be used for down payments and newly hired faculty only realize its benefits if and when they decide to purchase a home. The ZIP is also limited in its impact; it is likely to serve primarily in aiding high-earning households purchase homes outside of University Hills. In contrast, the FRA offers housing benefits that fall out of the scope of the ZIP loan; it can benefit in the recruitment of faculty at any income level and be used for a variety of purposes. The FRAs will have to be funded by the Schools, although the Provost might consider a central funding source that aligns with campus hiring priorities (ie, the Black Thriving Initiative).

We acknowledge that reintroducing the FRA after the ZIP pilot year can recreate previous utilization patterns unless the Provost can monitor or limit the amount of FRA that is offered or reserve FRA funds for Schools that have small start-up packages and have historically underutilized the FRA. We also acknowledge that faculty who receive both the ZIP loan and FRA (assuming this is allowed) will receive a higher amount of housing support than those who receive one or the other.

Conclusion

While the ZIP offers valuable down payment assistance, its narrow scope will likely make the biggest impact among new faculty in high-earning households by accelerating their home purchase outside of University Hills. Our analysis revealed that this will be a minority of newly-hired faculty and that University Hills waitlist will remain impacted. Housing affordability is a major factor in recruiting new faculty and the ZIP loan should be one of several programs to offer housing assistance to new hires. We recommend that the FRA continue as a recruiting tool and that campus leadership consider creative ways to expand the ZIP program's impact on the availability of homes in University Hills (ie, allowing senior faculty in University Hills to access the loan program).

Appendix 1 - Area home price analysis

Table 1: Median sold price (in millions) and median price per sqft in March 2023

	Redfin.com		Realtor.com		Average	
	median price	per sqft	median price	per sqft	median price	per sqft
Irvine	$1.38	$681.00	$1.40	$694.00	$1.39	$687.50
Santa Ana	$0.76	$537.00	$0.75	$537.00	$0.76	$537.00
Tustin	$0.99	$585.00	$0.99	$595.00	$0.99	$590.00
Foothill ranch	$0.61	$592.00	$0.88	$567.00	$0.74	$579.50
Costa mesa	$1.13	$562.00	$1.10	$676.00	$1.12	$619.00
Long beach	$0.79	$601.00	$0.79	$604.00	$0.79	$602.50
Lake Forest	$1.01	$583.00	$1.00	$586.00	$1.00	$584.50
Average	$0.95	$591.57	$0.99	$608.43		

Note: medain price is the median sale price in millions in March, 2023; For Redfin the per sqft price is the median sold price, while that for Realtor it is the median listing price.

Table 2: Median sold price by bedroom count in March 2023 (rockethomes.com)

	Irvine	Santa Ana	Tustin	Foothill ranch	Costa Mesa	Long Beach	Lake Forest
1 bed	$578K	$390K	$492.5K	$431K	$480K	$435K	$432K
2 bed	$851.2K	$495K	$662.5K	$580.5K	$750K	$625K	$589K
3 bed	$1.1M	$750K	$960K	$950K	$1.1M	$900K	$980K
4 bed	$1.7M	$865K	$1.2M	$1.3M	$1.3M	$1.1M	$1.2M

Appendix 2 - Quantitative Analysis

We assume faculty in groups C3 & C4 (see below) will accept extra $ if offered. So, we can see that the program cost is defined by the number of people in C4, plus those in C3 for whom the down payment becomes manageable, plus those in C2 for whom the extra $ is enough to influence their decision. Meanwhile, the program impact is defined by the same set, minus C4 (who would have bought outside anyway).

So, now we are at the crux. C2 is hard to analyze without a survey, since it requires knowing people's valuation of UHills vs outside. Here we'll consider only newly hired faculty, to understand the steady-state influence of the program.

I'm going to explicitly list all the assumptions and where the data we used came from, so we can debate the provenance of those values and update them if you would like.

First, the program provides a one-time loan, so it can **only** be used to improve one's ability to meet a down payment, **not** to change the monthly payment to income ratio. So, we can first divide the individuals into three groups:

A. Cannot afford the monthly payment on any house
B. Can afford monthly in UHills, but not external
C. Can afford monthly for the outside market

Category A we cannot help at all with the program. Category B are not currently helped, but we are considering potential changes that could change that. Category C are those currently targeted by the program.

The least expensive houses in Irvine range from $1.2m to $1.6m or so (via Zillow); let's pick $1.5m as a round number. If we assume 10% downpayment, this is $1.35m in mortgage; at 3.25% on a 30 year loan, we have payments of $5875 per month. MOP loans require that the payment not exceed 40% of the household income; so that would require a household income of about $175k. From the MOP loan reported household income data, we see about 45% of the entries meet this threshold. We will assume that, for future new hires, this same percentage of people can afford to purchase in the outside market.

Now, let's divide Group C into several parts, based on their preferences given the current trade-off between house size, location, cost, and the potential for growth in value in UHills and outside. These are:

C1. Prefer to rent. Assume not influenced by additional loan $.
C2. Prefer to buy in UHills. Assume influenced by **some** amount of additional $ (might be large).
C3. Prefer to buy outside, but cannot afford the down payment.
C4. Prefer to buy outside and can afford to do so already.

C3, however, is not so hard. The current loan amount ($75k) covers exactly 5% of a $1.5m house, which is either the full or ½ the downpayment requirement.

So, considering people in C3, we can move them off the UHills list by providing a downpayment, but there seems to be little argument to increase that amount more than the cost of a starter home mortgage down payment, since doing so will increase the cost (times C3+C4), but not change the impact (C3).

The group C2 is more debatable, but given the complexity of trade-off between location & size versus investment, I am not sure that small increases in the amount would have a significant effect.

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Now let's turn briefly to Group B. We had a proposal to offer them the loan also.

B1. Prefer to rent
B2. Prefer to buy, but cannot afford downpayment
B3. Prefer to buy and can afford downpayment

If we offer the loan to UHills purchasers, we increase the number of faculty homeowners by B2 (impact), at cost proportional to (B2+B3).

However, we also negate any influence the loan might have on group C2, and add the group B2 to the UHills waitlist, so this has some positive effects (increased chance of homeownership for B2), but also some negative (worse chance of homeownership for B3 and C2).