bae urban economics

Analysis of Proposed Eastern and Western Placer County Voluntary Deed Restriction Programs

Prepared for the County of Placer

August 26, 2020

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Shawna Purvines, Principal Planner
Emily Setzer, Senior Management Analyst
Community Development/Resource Agency
County of Placer
3091 County Center Drive
Auburn, CA 95603

Via e-mail: SPurvines@placer.ca.gov
ESetzer@placer.ca.gov

Dear Shawna and Emily:

We are pleased to provide the final economic analysis of the two voluntary residential deed restriction programs that are currently being considered for implementation in Placer County.

The purpose of this analysis is to provide information that the County can use to better understand the potential value of both income-based and non-income-based residency restrictions on real property, so-as to inform future negotiations with property owners. With limited information available, BAE used a number of different methods to "triangulate" the potential range(s) in price that the County would need to pay in order to entice property owners to establish deed restrictions on their properties under the proposed programs.

Based on the proposed program parameters, this analysis also discusses some of the potential economic benefits that may accrue to the Placer County community as a result of program implementation. These include the general return on investment (i.e., economic and jobs benefits resulting from new permanent resident spending in the region); reductions in vehicle miles travelled (VMT) due and in-commuting; changes in school funding; and benefits to employers resulting from improved employee retention. We discuss these various benefits as they relate to both programs, though due to likely variations in how each program would likely be structured, both programs will not likely have all the same impacts.

As always, it has been a pleasure working with you and Emily on this important project. If you have any additional questions, or would like to discuss any of the report content in more detail, please do not hesitate to contact me at (530) 574-9285.

Sincerely,

Aaron Nousaine

Aaron Nousaine, MCRP
Associate Principal

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EXECUTIVE SUMMARY

In March 2020, the Placer County Board of Supervisors directed County staff to develop a countywide deed restriction program intended to expand the housing supply available for occupancy by resident workforce households. Known as the *Workforce Housing Preservation Program*, the deed restriction program will be available countywide, with some additional program provisions applying specifically to the Eastern Placer County region, which generally extends from Donner Summit to the Nevada State line and Lake Tahoe. In support of program development, Placer County retained BAE Urban Economics, Inc. (BAE) to assess the value of the deed restrictions and the economic benefits of program implementation.

Workforce Housing Preservation Program Overview

The following are some of the key characteristics of the two main deed restriction program components.

Countywide Program Overview

- Funded by the County's housing trust fund and through inclusionary in-lieu fee payments made by developers of new residential and commercial projects.
- Initial focus is on single-family for-sale properties, though the program may also be used to secure deed restrictions on multifamily for-sale and rental housing as well.
- Units enrolled in the countywide program would be use restricted for occupancy by households earning 120 percent of the area median income (AMI) or less.
- At least one member of the household must work at least 30 hours per week at a work site within 20 miles of the home that is within Placer County.
- The units would be subject to 55-year deed restrictions that renew upon sale/transfer.
- Units cannot be rented on a short-term basis for more than 30 days.

Eastern County Program Overview

- The supplemental program in the Eastern County would be similarly structured
- Under the Eastern County program, occupancy would not be limited based on income.
- At least one member of the household must be employed within the Truckee Unified School District.

Deed Restriction Cost Evaluation

Little information currently exists regarding the value of deed restrictions of this type and few units with comparable deed restrictions exist in California. Therefore, this analysis uses four different approaches to evaluate the potential value associated with residential deed restrictions. These include 1) case studies of two similar programs, 2) an evaluation of the value of deed restricted housing units in Placer County, 3) an evaluation of the ability to households to pay for housing compared to current market rate pricing, and 4) interviews with area stakeholders and persons knowledgeable regarding the local real estate market.

Deed Restriction Case Studies

BAE conduct case study research into similar programs, including in Mammoth Lakes Housing Deed Restriction Program in Mammoth Lakes, California, and the InDeed program in Vail, Colorado. County staff separately researched the Proximity Housing Loan Program in Napa County, which has local employment requirements similar to those proposed by the County. The following summarizes some of the key aspects of the Mammoth Lakes and Vail programs.

Mammoth Lakes Housing Deed Restriction Program

- Mammoth Lakes Housing manages 38 deed restricted for-sale properties.
- These are inclusionary housing units that were developed and deed restricted as part of larger market rate housing projects.
- Units were originally sold at prices affordable at 80 percent of AMI.
- Resale prices are set based on the original price, which is adjusted based on the change in the median income. Up to a 15 percent adjustment is also made to account for improvements that are made to the property.
- The 55-year deed restriction renews upon sale or transfer of the property.
- Due to the way the restrictions are recorded, some units have been lost to foreclosure and the deed restrictions removed.

Vail Colorado InDeed Program

- The InDeed Program involves the purchase of deed restrictions on existing homes, with the focus being mainly on ownership single-family and condominium units.
- The Town negotiates a one-time payment with property owners in exchange for a perpetual (i.e., no expiration date; deed restrictions run with the land) restriction.
- Units must be occupied by year-round residents that are employed an average of at least 30 hours per week within Eagle County.
- There are no income or home/resale price restrictions.
- The maximum the Town will pay in exchange for a deed restriction is $200,000.
- The average that the Town has actually paid for a deed restriction is $66,823, with the typical amount ranging from 15 to 17 percent of market value.

Comparable Pricing Analysis

Placer County staff worked with the Clerk Recorder's office to provide information regarding 12 properties located in the Atwood Ranch development near Auburn which are subject to deed restrictions. These units were originally priced at 80 percent of AMI, with the deed restrictions structured in a similar way to the Mammoth Lakes program. Seven of the 12 units have changed hands between 2013 and the second quarter of 2020, with the most recent sale occurring in 2019 at a price of $225,000, which is around 36 percent below market value for a comparably sized housing unit in the surrounding area.

Affordability Gap Analysis

Most income-based deed restriction programs set the sale price for deed restricted units based on the maximum income eligible to occupy the unit and then calculate an “affordable” purchase price.

Based on a comparison between median for-sale home prices and the purchase price that would be affordable to households earning up to 120 percent of AMI, BAE anticipates that few moderate-income home buyers in the Western County would be willing to accept a deed restriction on a two-bedroom single-family home or smaller, but may be willing to do so for larger housing units.

BAE similarly anticipates that few moderate-income home buyers in the Eastern County would be willing to accept deed restrictions on one-bedroom condominiums, but may be willing to do so for most single-family homes and larger condominium units. At achievable incomes (i.e., 220 percent of AMI for multifamily units and 245 percent of AMI for single-family units), the median priced home sold within the past year in the Eastern County is still relatively affordable. Therefore, BAE anticipates most households with incomes close to the maximum under the achievable income definition would likely prefer to purchase unrestricted properties.

Stakeholder Interview Findings

BAE conducted ten interviews with stakeholders throughout Placer County to collect perspectives on the pricing of deed restrictions, in particular for the Eastern County program. The following is a brief summary of some of key insights gained through the interviews.

<u>*Overall Findings*</u>

- Real estate brokers and stakeholders are supportive of proposed deed-restriction programs, though they note that the initial payment for the deed restriction must ensure home sellers receive adequate compensation.
- Realtors also highlighted potential concerns over prolonged sale transaction timelines. If realized, this would be a significant deterrent for prospective program participants.
- Stakeholders clearly highlighted the need to simplify the program’s eligibility and administrative requirements to encourage participation.
- The program needs to interface seamlessly with the typical real estate transactions process and the mortgage underwriting process or people won’t participate.

<u>Countywide Program</u>

- The countywide program should set prices based on the difference between what households can afford to pay and the market value.

<u>Eastern County Program</u>

- The pricing of residency restrictions will be a function of the consumer spending power and the pricing of comparable unrestricted housing units.
- The key deterrent factor what will discourage abuse of the program is the perception that accepting a restriction will impact future resale potential.
- Stakeholders expressed concern that the program would not have an income cap or restrictions on resale value.
- Concern is focused on the need to ensure long-term affordability, though all of those interviewed ultimately agreed that the program is likely worth trying as envisioned.
- If the program is well monitored and enforced, households who can access the open market will prefer to buy units that are not subject to deed restrictions.
- This dynamic should help to ensure that deed restricted units are only purchased by households who really need the assistance.
- Stakeholders still expressed concern that if the pool of deed restricted housing units is too small, the units will be occupied only by the highest income households who otherwise aren't interested in, or able to, secure non-deed restricted units.
- Local realtors interviewed for this research indicate that the effective value of the deed restrictions would range between ten and 20 percent of market value.
- Some stakeholders indicated that the 15 to 17 percent experienced in Vail sounds about right and may represent a reasonable starting assumption for the purposes of developing the Placer County program.
- BAE estimates that at 16 percent of market value, based on recent sales data, the average value of a deed restriction purchased under the program would be $83,800.
- Stakeholders also highlighted a deep willingness within the community, particularly in eastern Placer County, to secure housing for the benefit of the community.

Community Benefits Assessment

In addition to evaluating pricing for deed restrictions, BAE also evaluated some of the potential benefits that may accrue to Placer County as a result of program implementation.

Economic Impacts Analysis

<u>Countywide Program</u>

- The analysis assumes that 10 new deed restrictions are secured per year and that participating households are new to the County with incomes at 120 percent of AMI.
- BAE estimates that $1.035 million in new household income would support 5.7 new full-time jobs in Placer county and $940,588 in new economic output per year.

- Participant households would also support $533,625 in taxable sales per year, which would generate around $5,336 per year (i.e., $534 per unit per year) in sales tax.
- Property taxes generated by participating properties would be approximately $18,000 per year (i.e., $1,800 per unit per year) less than if the units were sold at market rate; though this is not likely to represent a real loss in property tax revenue.

Eastern County Program

- The analysis assumes that 40 new deed restrictions are secured per year.
- BAE estimates that $3.35 million in new household income would support 2.7 new full-time jobs in the Truckee North Tahoe region and $379,259 in new economic output per year countywide.
- The relatively limited impacts are due to the limited availability of consumer goods and services within the region, which results in significant economic leakage.
- Participating households would support $848,267 in taxable sales per year, which could generate up to $8,483 per year (i.e., $212 per unit per year) in sales tax.
- Another important benefit is that the increased number of resident households in the region would, over time, support the establishment of new resident serving businesses which, in turn, would allow the region to capture more of its existing resident spending.
- Property taxes generated by participating properties would be approximately $34,000 per year (i.e., $838 per unit per year) less than if the units were sold at market rate; though this is not likely to represent any real loss in property tax revenue.

Reduction in Vehicle Miles Traveled (VMT)

One of the likely direct impacts of the proposed Eastern County program would be a decrease in the in-commute rate and a subsequent reduction in VMT. According to Kittelson and Associates, households who relocate into the Eastern County to participate in the deed-restriction program could reduce their daily commute by 36 to 70 miles per workday. This represents a reduction in commute related VMT of 45 and 88 percent, on average.

Impacts on School Enrollment and Funding

The Placer County Office of Education indicates that school districts in Placer County receive an average of $9,500 per year an average daily attendance (ADA) basis. Assuming that the countywide deed restriction program results in up to seven new students per year countywide, BAE estimates that Placer County schools could receive roughly $66,500 in additional variable funding. The Eastern County program is not expected to impact school funding, as the Tahoe Truckee unified School District (TTUSD) is a basic aid district.

Benefits of Improved Worker Recruitment/Retention

Stakeholders throughout the County indicate that one of the direct benefits of the proposed deed restriction programs is a reduction in worker recruitment and training costs. Successful workforce retention also has an impact on morale, with many of those interviewed indicating that an expansion of the workforce housing stock would strengthen the sense of community.

INTRODUCTION

In March 2020, the Placer County Board of Supervisors directed County staff to develop a countywide deed restriction program intended to help expand the housing supply available for occupancy by resident workforce households. Known as the *Workforce Housing Preservation Program*, the deed restriction program will be available countywide, with some additional program provisions applying specifically to the Eastern Placer County region, which generally extends from Donner Summit to the Nevada State line and Lake Tahoe.

In support of program development, Placer County retained BAE Urban Economics, Inc. (BAE) to conduct a brief analysis to help determine the approximate value of the deed restrictions that will be secured on homes within the unincorporated County through the proposed program, as well as some of the economic benefits of reserving housing units for occupancy by worker households. Due to the program's innovative nature, little information currently exists regarding the value of deed restrictions of this type and few units with comparable deed restrictions exist within Placer County. Therefore, this analysis uses four different approaches to evaluate the potential range in value associated with residential deed restrictions. These include a review of outcomes for similar programs in Vail, Colorado, and Mammoth Lakes, California; a comparison between the value of income-restricted units at the Atwood project in Placer County with comparable market rate housing units in the area; an evaluation of the difference between market rate home prices and the price that can be considered affordable at workforce incomes and, lastly; collection of information through conversations with regional stakeholders, including real estate brokers and developers, stakeholder groups, and local government agencies.

In addition to evaluating the approximate value associated with residential deed restrictions, this analysis also broadly evaluates some of the benefits that may accrue to the Placer County community as a result of program implementation. More specifically, this report uses the IMPLAN economic model to estimate the relative increase in economic activity resulting from the relocation of workforce households into Eastern Placer County. The impacts are then roughly juxtaposed against the direct costs of the program and expressed as a "return on investment". In addition, the analysis also discusses estimated reductions in vehicle miles travelled (VMT) and associated motor vehicle emissions, increases in school enrollment and associated funding, and reduced costs to employers resulting from improved workforce retention.

Countywide Program Overview

The countywide deed restriction program would be funded by the County's housing trust fund and through in-lieu fee payments made by housing developers, but may also receive funding from other sources, such as the General Fund and Transient Occupancy Tax (TOT) revenues. The program is intended to be implemented in concert with an updated countywide inclusionary housing policy. Under the program, the regional housing trust would leverage housing trust fund dollars to secure deed restrictions on existing properties. The initial focus of the program is expected to be on securing deed restrictions on single-family properties that are listed for-sale on the market. While the County will not be prohibited from securing deed restrictions on rental properties, most rental properties in Placer County already lease units at prices that are affordable to workforce households. Based on the common definition of workforce housing, the County anticipates that the program will be targeted towards meeting the needs of households earning up to 120 percent of the area median income (AMI). Under the deed restriction, the unit would be required to be occupied by an income-qualified household with at least member who works at least 30 hours per week at an employment site in Placer County. The home must also be within 20 miles of the work site and in the unincorporated County. As determined by State law, the deed restrictions would be maintained for a maximum term of 55 years, with the term renewing upon sale of the property or another similar transaction (e.g., transfer of the property to a family member).

Eastern County Program Overview

Recognizing the unique market conditions present in eastern Placer County, the Workforce Housing Preservation Program would include a secondary sub-program in the Eastern County. The Eastern County program would not include an income-restriction on occupancy, but would rather require full-time occupancy by a household with at least one member who works at least 30 hours per week at a work site within the Truckee Tahoe Unified School District. The participating property would also need to be within 20 miles of the work site, similar to the broader countywide program. While the countywide program would not be open to retired individuals, the Eastern County program would also be open to retirees who have worked at least 30 hours per week for at least seven years in the Eastern County. Persons who retire while participating in the program would not be required to move or sell the unit, though the deed restriction would remain on the unit for the remainder of the term. The term of the deed restriction would be the same as for the countywide program and would restart upon resale. Under the Eastern County program, participating housing units can be rented short-term, but for no more than 30 days per year, or can be rented long-term to a qualifying household.

DEED RESTRICTION COST EVALUATION

Due to the limited availability of information pertaining to the value of residential deed restrictions (i.e., the difference in value between restricted and non-restricted property), this research uses four different methods to collect relevant information with the goal of triangulating an approximate range in anticipated value. These include a review of outcomes for similar programs in other communities; a comparison between the value of income-restricted units with comparable market rate housing units; an evaluation of the difference between market rate home prices and the price that can be considered affordable at workforce incomes and, lastly, information collected through conversations with regional stakeholders, including real estate brokers and developers, stakeholder groups, and local government agencies.

Deed Restriction Case Studies

For the purposes of this research, Placer County staff requested that BAE conduct case study research into two programs that have similarities to the program currently being proposed for Placer County. These include the Mammoth Lakes Housing Deed Restriction Program in Mammoth Lakes, California, and the InDeed program in Vail, Colorado. The following is a brief description of each program, as well as a discussion regarding how each program approaches assigning a value to the deed restrictions (i.e., determining how much to compensate the property owners who agree to the deed restrictions) and, to the extent possible, what values are associated with the restrictions.

MLH Deed Restrictions, Mammoth Lakes, California

In response to a shift towards a higher-end second home-oriented housing market in the early 1990s, the Town of Mammoth Lakes established a new set of housing policies and regulations and committed ongoing financial support towards the creation of a new non-profit housing organization called Mammoth Lakes Housing, Inc. (MLH). MLH has four staff and a ten-member board of directors. The organization provides a variety of direct services, including home ownership counseling, and property management services for deed-restricted apartments and condominiums. MLH not only leads the Town's workforce housing development program, it also directly administers the Town's homebuyer assistance and rehabilitation programs and provides input on Alternate Housing Mitigation Plans.[1] Recognizing the limited resources available for housing assistance in the Eastern Sierra region, MLH also provides limited services to other communities, including Mono and Inyo Counties, and the Town of Bishop. These services are typically provided on an as-needed basis and often include consulting services and/or grant management.

[1] Alternate Housing Mitigation Plans are requirements placed on certain new developments that are required to mitigate their impacts on affordable housing demand

History of the Housing Mitigation Ordinance (HMO)

The Town of Mammoth Lakes Housing Mitigation Ordinance (HMO) was originally established in 2000, with interim policies established in 2009, and a comprehensive update conducted in 2015. The principle behind the ordinance is the concept that development must offset the new housing demand that it generates. The ordinance included standard assumptions regarding job generation rates for different land use types and allowed certain types of projects, such as residential projects with fewer than five units, to pay an in-lieu fee. The ordinance required that mitigation units be constructed on-site, unless demonstrated to be undesirable or infeasible, in which case the builder was required to submit an Alternate Housing Mitigation Plan (AHMP). For various reasons, the Town frequently negotiated special arrangements with developers to achieve "win-win" solutions, often including some combination of an in-lieu fee payment and/or land dedication. MLH was, in part, established in order to ensure local capacity to utilize the resources provided through developer negotiations. The current HMO, updated in 2015, provides a menu-based format for compliance, offering developers the option to pay a fee, build mitigation units on-site or off-site, convey land to support affordable housing units by others, etc.), with on-site construction no-longer being a requirement.

Deed Restricted For-Sale Housing Program

According to Patricia Robertson, MLH Executive Director, the organization currently manages 38 deed restricted for-sale properties throughout the Mammoth Lakes community, in addition to having developed 82 low-income rental apartments and 48 ownership units.[2] These units were all developed under the HMO as mitigation for estimated induced affordable housing demand. All of the units were originally sold at prices determined to be affordable to households earning up to 80 percent of AMI. Upon receipt of an owner's Notice of Intended Transfer, MLH determines the maximum restricted sales price based on the percentage increase in the median income for a four-person household in Mono County since the owner acquired the unit, with additional upward adjustments (not to exceed 15 percent) made for any substantial structural or permanent fixed improvements, or downward adjustments to account for needed repairs.[3] Upon transfer of the property, the deed restriction will renew for another 55 year term.

Homes managed under the deed restriction program are not allowed to be leased out to another party, including to "roommates" unless otherwise authorized by MLH under the condition that the owner would incur substantial hardship if not permitted to do so, the lease is not greater than 12 months, the tenant maintains the property in good condition and prohibits subleasing, and that the rent does not exceed 30 percent of the tenant's income or

[2] According to the 2011 Mammoth Lakes Housing Needs Assessment, there were a total of 249 deed-restricted residential units in Mammoth Lakes at that time, meaning that the 38 units managed by MLH represent only a small portion of the total affordable housing stock within the community.

[3] In cases where the fair market value is less than the calculated indexed value, the fair market value is used as the basis for establishing the transaction price.

the monthly mortgage, insurance, and tax costs otherwise incurred by the owner. Patricia Robertson, Executive Director, that for units deed restricted at 120 percent of AMI, similar to the proposed Placer County countywide program, the difference between the price of a deed restricted unit in Mammoth Lakes and a comparable market rate units is around 30 percent.

During the Great Recession, a number of deed restricted housing units underwent foreclosure proceedings and were converted to market rate due to the structure of the deed restriction, which placed it in a subordinate position to the interests of the primary lien holder (i.e., the issuer of the primary mortgage). In the event of foreclosure, the deed restrictions can be cancelled and the unit sold at fair market value. Placer County staff indicate that the proposed program would not be at risk to a similar loss of units due to foreclosure due to differences in the way that the proposed program will be structured/administered. According to the 2011 Mammoth Lakes Housing Needs Assessment, Realtors have found that buyers will typically choose to purchase unrestricted housing units over income-restricted units in cases where the price difference between the two options is relatively low, though the report does not identify how much of a discount is necessary to entice buyers into income-restricted properties. The report does, however, also acknowledge that deed restricted units are part of a balanced assortment of housing options in a market with overall high prices and limited availability of units suitable for full-time resident occupancy.

InDeed Program, Vail, Colorado

As one of the premier resort and ski destinations in the United States, Vail suffers from many of the same housing affordability and availability issues as eastern Placer County, with constraints on new housing development and strong demand from buyers seeking second homes that remain vacant or are only occupied on a short-term basis, making housing unavailable and/or unaffordable for local workers. Vail is landlocked by U.S. national forest lands, which constrains the ability of the Town to meet housing demand by expanding its boundaries to accommodate new housing development. The housing crisis is exacerbated by turnover in existing units as they shift to second-home status. Similar to eastern Placer County, the available data indicate that only around ten percent of all home sales in Vail are used for full-time resident occupancy.

Similar to other resort communities, like Aspen, the Town of Vail has turned to deed restrictions as a method for securing a dedicated housing supply for local workers. In late 2016, the Town adopted the *Vail Housing 2027 Strategic Plan*, with the goal of obtaining deed restrictions on an additional 1,000 homes in Vail by 2027, limiting occupancy of those homes to full-time workers employed within Eagle County. As part of the effort to reach this goal, the Town implemented the Vail InDeed program. In contrast to the Mammoth Lakes Housing deed restriction program that focuses on requiring that certain new developments set aside a portion of new units with deed restrictions, the InDeed program involves acquiring deed restrictions on existing housing units rather than on newly constructed housing units. This means that the program must provide financial inducement for owners of existing housing to opt into the program. The Town Council gave full authority for the acquisition and approval process to the Vail Local Housing Authority (VLHA), so no further Council approval is required to initiate and complete transactions under the program.

The program provides a financial incentive to property owners via a one-time payment from the Town in exchange for a perpetual (i.e., no expiration date; the deed restriction runs with the land) deed restriction that limits occupancy to year-round residents that are employed an average at least 30 hours per week on an annual basis in Eagle County. At least one occupant is required to meet this condition, and the unit can be either owner- or renter-occupied. There are no income or home sale price restrictions, but the Town limits the maximum amount paid out for a deed restriction to $200,000, with exceptions only where authorized by Town Counsel (none of the participating properties so far has required a subsidy of that size). While there is no limit to the value of a house in the program, this deed restriction value cap, along with perceived impacts on the home's resale value, effectively discourage high-end homes from participation. The Town retains the option to purchase any deed restricted property when it is put up for sale. Vail does not have a specific formula for valuing a deed restriction; instead Town staff evaluate several factors, including an assessment of fair market value and a review of market conditions, including a review of comparable market rate and deed-restricted home sales. Ultimately, the program is voluntary for both the Town and potential sellers/buyers. The VLHA reports that nearly three-fourths of applications reach completion with a deed restriction put in place.

The Town views this program as in infrastructure program, where worker housing is considered critical infrastructure necessary for the viability of the town and region. While the owner receives a payment in exchange for the deed restriction, the Town considers those payments as investments in the long-term health of the community. The program is seen as a solution for increasing the long-term availability of housing for middle income households.

The 2020 Fiscal Year budget for the InDeed program is $2.5 million, which is comparable to recent prior year funding allocations. There are three main sources of Town funding for the InDeed program: the General Fund, the Capital Fund, and the Housing Mitigation Fund. According to the VLHA, the Housing Mitigation Fund has been unpredictable and less reliable than the other sources. The Town has been willing to provide additional funding when it has led to the creation of more deed restrictions. For instance, in 2017, the Town expended over four million dollars under the program. Approximately 60 percent of the deed restrictions are on owner-occupied units, with the remainder on smaller multi-unit rental housing properties.

As of the beginning of August this year, the InDeed program has led to a total of over 160 deed restrictions being put in place. Based on more detailed data published for the end of May, this program had established 144 deed restrictions on units ranging from studio apartments, to condos, to single-family homes. Units range in size from approximately 300 to 2,100 square feet, with an average unit size of 827 square feet. The majority of the housing units participating in the program are studio and one-bedroom units. The per unit amount paid by the Town to the property owner in exchange for establishing a deed restriction ranges from $27,174 to $157,500 per restricted unit, with an average of $66,823 per restricted unit. The VLHA estimates that the amount paid for the deed restrictions typically represents approximately 15 to 17 percent of fair market value. Approximately 100 of the 160+ deed restrictions were on existing units, with the others generally created as part of a development agreement for a larger new development project. While the current mix includes a high proportion of smaller units, the VLHA reports that demand is so great for all unit types that they have not yet focused on particular unit types. One noteworthy feature of the InDeed program is that the deed restriction is not subordinate to any mortgage, so it cannot be removed in the event of a foreclosure, unlike under the Mammoth Lakes program (discussed above). Since there is no cash lien associated with the restriction, the lender is still in the primary position financially. It should be noted that Vail uses other deed-restricted housing programs. For example, prior to the inception of the InDeed program, Vail already had 698 deed-restricted units under different programs.

George Ruther, Director of the Vail Housing Department, reports that the Town considers the InDeed program to be very successful. The community recognized the need to preserve and provide worker housing and maintain a year-round community. Other factors key to the success are that it is a voluntary, non-regulatory program, and there is strong enforcement of the restrictions on participating units in order to protect the Town's investments.

Comparable Pricing Analysis

For the purposes of this research, BAE requested that Placer County staff work with the Clerk Recorder's office to provide information regarding 12 properties in unincorporated Placer County that are currently subject to restrictions on occupancy. All 12 of the properties are located within a development known as Atwood Ranch, located near Auburn. The original purchase price of the units was restricted to be affordable to households earning 80 percent of AMI. Since the initial sale of the units, the resale value has been determined by adjusting the original sale price based on documented changes in the area median income. In the event that the property owner is unable to sell the unit at the restricted price, Placer County has the option to buy the unit or assign an eligible buyer, prior to the removal of the restriction and sale of the unit at the market rate. The deed restrictions are subject to a 20-year term, with the first units approaching the date of cancellation of the deed restrictions in 2028. It is unclear at this time whether the 20-year term resets upon resale.

As reported in Table 1, seven of the 12 deed restricted housing units the Atwood Ranch subdivision changed hands at least once between 2013 and the second quarter of 2020. An analysis of home sales within a one-mile radius identified comparable sales for units that are of similar size, though many are somewhat older than the Atwood units. Based on this information, the most recent sale of a deed restricted unit occurred in 2019 at a price of $225,000, or around $182 per square foot. This was approximately 33 percent below the median sale price for comparable units within a one-mile radius of $336,500, or $283 per square foot. Normalizing for slight variations in square footage between the deed restricted unit and the comparable market rate units, the average price per square foot for a unit that is deed restricted to be affordable at 80 percent of AMI was approximately 36 percent below the average per square foot for the comparable market rate units.

Table 1: Atwood and Comparable Sales Characteristics, 2013 to Q2 2020

	Year of Last Market Sale								
	2013	2014	2015	2016	2017	2018	2019	2020	**Total**
Deed-Restricted Atwood Ranch									
Number of Sales (a)	3	1	0	1	0	1	1	0	7
Average Sale Price	$204,500	$204,500	n.a.	$204,500	n.a.	$204,500	$225,000	n.a.	$207,429
Median Sale Price	$204,500	$204,500	n.a.	$204,500	n.a.	$204,500	$225,000	n.a.	$204,500
Average Sq. Ft.	1,238	1,238	n.a.	1,238	n.a.	1,238	1,238	n.a.	1,238
Average Price psf	$165	$165	n.a.	$165	n.a.	$165	$182	n.a.	$168
Market-Rate Atwood Ranch 1-mi Radius									
Number of Sales (a)	4	4	7	10	9	3	8	4	49
Average Sale Price	$183,250	$247,875	$267,500	$314,800	$317,122	$344,833	$347,438	$338,750	$301,390
Median Sale Price	$182,000	$242,750	$250,000	$297,500	$318,000	$342,500	$336,500	$345,000	$310,000
Average Sq. Ft.	1,380	1,254	1,306	1,288	1,301	1,239	1,238	1,324	1,289
Average Price psf	$136	$198	$207	$250	$246	$283	$283	$258	$237

(a) ListSource only shows most recent sale of any property, so if the property has changed hands more than once during the period only the most recent sale is shown.

Sources: ListSource, 2020; BAE, 2020.

Due to the innovative nature of the program proposed for eastern Placer County, there currently are no other housing units in Placer County that are subject to similar restrictions on occupancy, but which are not restricted in terms of the income of the occupant household. Therefore, this analysis pertains only to the countywide income-based program.

Affordability Gap Analysis

For most income-based deed restriction programs, the typical approach for estimating the approximate value or cost of a deed restriction is to compare the maximum amount that an income qualified household could afford to pay for the unit and compare that to prevailing market rates for similar homes, using whichever is lower as the effective price for the housing unit under the program, with the difference representing the value of the deed restriction.

Table 2 reports the home sale price that can generally be considered affordable to Placer County households at various income levels ranging from “Extremely Low” to “Achievable”, based on income limits published by the California Department of Housing and Community Development (HCD), as well as supplemental income limits published by the Tahoe Regional Planning Agency (TRPA). The additional “Achievable” income bracket included in the TRPA income limits is intended to capture workforce households who are higher income, but who may still struggle to locate and secure adequate housing within the Lake Tahoe region.

Table 2: Affordable Sale Price by Household Size and Income, Placer County, 2020 (Page 1 of 2)

Median Family Income:	**$86,300**					
	Persons Per Household					
2020 Income Limits	One	Two	Three	Four	Five	Six
Extremely Low-Income (30% MFI)	$18,150	$20,750	$23,350	$26,200	$30,680	$35,160
Very Low-Income (50% MFI)	$30,250	$34,550	$38,850	$43,150	$46,650	$50,100
Low-Income (80% MFI)	$48,350	$55,250	$62,150	$69,050	$74,600	$80,100
Median Income (100% MFI)	$60,400	$69,050	$77,650	$86,300	$93,200	$100,100
Moderate-Income (120% MFI)	$72,500	$82,850	$93,200	$103,550	$111,850	$120,100
Multifamily Achievable Income (220% MFI)	$132,880	$151,910	$170,830	$189,860	$205,040	$220,220
Single-Family Achievable Income (245% MFI)	$147,980	$169,173	$190,243	$211,435	$228,340	$245,245

1-Person Household	Amount Avail. for Housing	Principal & Interest	Property Insurance	Property Taxes	Mortgage Insurance	Total Monthly Payment	Down-Payment	Affordable Home Price
Extremely Low-Income	$454	$315	$19	$73	$47	$454	$3,662	$69,746
Very Low-Income	$756	$525	$32	$121	$78	$756	$6,097	$116,141
Low-Income	$1,209	$840	$51	$193	$125	$1,209	$9,751	$185,734
Median-Income	$1,510	$1,049	$63	$242	$156	$1,510	$12,179	$231,975
Moderate-Income	$1,813	$1,260	$76	$290	$187	$1,813	$14,623	$278,524
Multifamily Achievable	$3,322	$2,309	$139	$532	$343	$3,322	$26,793	$510,346
Single-Family Achievable	$3,700	$2,571	$155	$592	$381	$3,700	$29,842	$568,417

2-Person Household	Amount Avail. for Housing	Principal & Interest	Property Insurance	Property Taxes	Mortgage Insurance	Total Monthly Payment	Down-Payment	Affordable Home Price
Extremely Low-Income	$519	$361	$22	$83	$54	$519	$4,186	$79,732
Very Low-Income	$864	$600	$36	$138	$89	$864	$6,968	$132,733
Low-Income	$1,381	$960	$58	$221	$142	$1,381	$11,138	$212,158
Median-Income	$1,726	$1,199	$72	$276	$178	$1,726	$13,921	$265,159
Moderate-Income	$2,071	$1,439	$87	$331	$214	$2,071	$16,703	$318,160
Multifamily Achievable	$3,798	$2,639	$159	$608	$392	$3,798	$30,632	$583,472
Single-Family Achievable	$4,229	$2,939	$177	$677	$436	$4,229	$34,108	$649,685

3-Person Household	Amount Avail. for Housing	Principal & Interest	Property Insurance	Property Taxes	Mortgage Insurance	Total Monthly Payment	Down-Payment	Affordable Home Price
Extremely Low-Income	$584	$406	$24	$93	$60	$584	$4,710	$89,718
Very Low-Income	$971	$675	$41	$155	$100	$971	$7,831	$149,171
Low-Income	$1,554	$1,080	$65	$249	$160	$1,554	$12,534	$238,735
Median-Income	$1,941	$1,349	$81	$311	$200	$1,941	$15,655	$298,188
Moderate-Income	$2,330	$1,619	$98	$373	$240	$2,330	$18,792	$357,949
Multifamily Achievable	$4,271	$2,968	$179	$683	$440	$4,271	$34,447	$656,137
Single-Family Achievable	$4,756	$3,305	$199	$761	$490	$4,756	$38,359	$730,646

- Continued on next page -

Sources: HCD, 2020; California Department of Insurance, Homeowners Premium Survey, 2019; BAE, 2020.

Table 2: Affordable Sale Price by Household Size and Income, Placer County, 2020 (Page 2 of 2)

4-Person Household	Amount Avail. for Housing	Principal & Interest	Property Insurance	Property Taxes	Mortgage Insurance	Total Monthly Payment	Down-Payment	Affordable Home Price
Extremely Low-Income	$655	$455	$27	$105	$68	$655	$5,283	$100,625
Very Low-Income	$1,079	$750	$45	$173	$111	$1,079	$8,703	$165,763
Low-Income	$1,726	$1,199	$72	$276	$178	$1,726	$13,921	$265,159
Median-Income	$2,158	$1,500	$91	$345	$223	$2,158	$17,405	$331,525
Moderate-Income	$2,589	$1,799	$109	$414	$267	$2,589	$20,881	$397,738
Multifamily Achievable	$4,747	$3,299	$199	$760	$489	$4,747	$38,286	$729,263
Single-Family Achievable	$5,286	$3,673	$222	$846	$545	$5,286	$42,634	$812,068

5-Person Household	Amount Avail. for Housing	Principal & Interest	Property Insurance	Property Taxes	Mortgage Insurance	Total Monthly Payment	Down-Payment	Affordable Home Price
Extremely Low-Income	$767	$533	$32	$123	$79	$767	$6,186	$117,831
Very Low-Income	$1,166	$810	$49	$187	$120	$1,166	$9,404	$179,128
Low-Income	$1,865	$1,296	$78	$298	$192	$1,865	$15,042	$286,513
Median-Income	$2,330	$1,619	$98	$373	$240	$2,330	$18,792	$357,949
Moderate-Income	$2,796	$1,943	$117	$447	$288	$2,796	$22,551	$429,539
Multifamily Achievable	$5,126	$3,562	$215	$820	$529	$5,126	$41,343	$787,487
Single-Family Achievable	$5,709	$3,967	$239	$914	$589	$5,709	$46,045	$877,051

6-Person Household	Amount Avail. for Housing	Principal & Interest	Property Insurance	Property Taxes	Mortgage Insurance	Total Monthly Payment	Down-Payment	Affordable Home Price
Extremely Low-Income	$879	$611	$37	$141	$91	$879	$7,089	$135,037
Very Low-Income	$1,253	$871	$53	$201	$129	$1,253	$10,106	$192,494
Low-Income	$2,003	$1,392	$84	$321	$207	$2,003	$16,155	$307,713
Median-Income	$2,503	$1,739	$105	$401	$258	$2,503	$20,188	$384,526
Moderate-Income	$3,003	$2,087	$126	$481	$310	$3,003	$24,220	$461,339
Multifamily Achievable	$5,506	$3,826	$231	$881	$568	$5,506	$44,408	$845,865
Single-Family Achievable	$6,131	$4,261	$257	$981	$632	$6,131	$49,449	$941,882

Ownership Cost Assumptions		
% of Income for Housing Costs	30%	of gross annual income
Down payment	3.50%	of home value
Annual interest rate	4.00%	fixed
Loan term	30	years
Upfront mortgage insurance	1.75%	of home value
Annual mortgage insurance	0.85%	of mortgage
Annual property tax rate	1.25%	of home value
Annual hazard insurance (a)	0.33%	of home value

Note:
(a) Based on an average of quoted insurance premiums from the Homeowners Premium Survey
Sources: HCD, 2020; California Department of Insurance, Homeowners Premium Survey, 2019; BAE, 2020.

Table 3: Residential Sales Characteristics, July 31, 2019 to July 31, 2020 (Page 1 of 2)

Eastern Slope Placer County

	Number of Bedrooms						
Single-Family	0-BD	1-BD	2-BD	3-BD	4-BD	5+ BD	**Total**
Number of Sales	0	7	49	189	124	47	416
Min Sale Price (a)	n.a.	$300,000	$85,000	$80,000	$150,000	$519,000	$80,000
Max Sale Price	n.a.	$539,000	$2,925,000	$3,500,000	$8,500,000	$9,500,000	$9,500,000
Average Sale Price	n.a.	$445,143	$670,418	$893,603	$1,450,141	$2,829,181	$1,244,343
Median Sale Price	n.a.	$460,000	$509,000	$750,000	$1,007,500	$1,995,000	$800,000
Average Sq. Ft.	n.a.	703	1,125	1,911	2,568	3,729	2,199
Average Price psf	n.a.	$697	$600	$465	$529	$699	$530
Condominiums							
Number of Sales	11	47	57	47	19	0	181
Min Sale Price (a)	$123,000	$130,000	$120,000	$115,000	$40,000	n.a.	$40,000
Max Sale Price	$699,000	$699,000	$1,525,000	$2,225,000	$2,600,000	n.a.	$2,600,000
Average Sale Price	$232,818	$335,585	$563,728	$659,766	$1,058,211	n.a.	$561,221
Median Sale Price	$185,000	$322,000	$465,000	$435,000	$785,000	n.a.	$415,000
Average Sq. Ft.	395	705	1,115	1,708	2,140	n.a.	1,226
Average Price psf	$589	$494	$513	$383	$508	n.a.	$478
All							
Number of Sales	11	54	106	236	143	47	597
Min Sale Price (a)	$123,000	$130,000	$85,000	$80,000	$40,000	$519,000	$40,000
Max Sale Price	$699,000	$699,000	$2,925,000	$3,500,000	$8,500,000	$9,500,000	$9,500,000
Average Sale Price	$232,818	$349,787	$613,047	$847,034	$1,398,067	$2,829,181	$1,037,232
Median Sale Price	$185,000	$325,000	$475,000	$715,500	$995,000	$1,995,000	$690,000
Average Sq. Ft.	395	705	1,120	1,871	2,511	3,729	1,904
Average Price psf	$589	$520	$553	$448	$526	$699	$514

Western Slope Placer County

	Number of Bedrooms						
Single-Family	0-BD	1-BD	2-BD	3-BD	4-BD	5+ BD	**Total**
Number of Sales	0	27	126	525	322	123	1,126
Min Sale Price (a)	n.a.	$52,500	$40,000	$5,000	$150,500	$300,000	$5,000
Max Sale Price	n.a.	$800,000	$987,500	$1,650,000	$2,297,500	$3,350,000	$3,350,000
Average Sale Price	n.a.	$345,167	$394,948	$570,059	$826,784	$1,040,423	$670,440
Median Sale Price	n.a.	$309,000	$359,500	$525,000	$760,000	$897,000	$605,000
Average Sq. Ft.	n.a.	800	1,386	2,053	3,046	4,142	2,460
Average Price psf	n.a.	$469	$295	$283	$272	$249	$283
Condominiums							
Number of Sales	0	0	22	6	0	0	28
Min Sale Price (a)	n.a.	n.a.	$110,000	$300,000	n.a.	n.a.	$110,000
Max Sale Price	n.a.	n.a.	$699,000	$610,000	n.a.	n.a.	$699,000
Average Sale Price	n.a.	n.a.	$175,818	$403,068	n.a.	n.a.	$224,515
Median Sale Price	n.a.	n.a.	$149,750	$327,955	n.a.	n.a.	$155,500
Average Sq. Ft.	n.a.	n.a.	993	1,789	n.a.	n.a.	1,164
Average Price psf	n.a.	n.a.	$170	$236	n.a.	n.a.	$184

- Continued on next page -

Note:
(a) May include time-share and partial unit sales.

Sources: ListSource, 2020; BAE, 2020.

Table 3: Residential Sales Characteristics, July 31, 2019 to July 31, 2020 (Page 2 of 2)

Western Slope Placer County (cont.)

	Number of Bedrooms						
All	0-BD	1-BD	2-BD	3-BD	4-BD	5+ BD	**Total**
Number of Sales	0	27	148	531	322	123	1,154
Min Sale Price (a)	n.a.	$52,500	$40,000	$5,000	$150,500	$300,000	$5,000
Max Sale Price	n.a.	$800,000	$987,500	$1,650,000	$2,297,500	$3,350,000	$3,350,000
Average Sale Price	n.a.	$345,167	$362,375	$568,172	$826,784	$1,040,423	$659,620
Median Sale Price	n.a.	$309,000	$345,000	$525,000	$760,000	$897,000	$597,000
Average Sq. Ft.	n.a.	800	1,328	2,050	3,046	4,142	2,429
Average Price psf	n.a.	$469	$276	$282	$272	$249	$281

Note:
(a) May include time-share and partial unit sales.

Sources: ListSource, 2020; BAE, 2020.

Table 3, above, reports characteristics regarding home sales in eastern and western Placer County from July 2019 to July 2020. The data indicate that the Western County experienced much higher transaction volumes, with 98 percent of those transactions involving detached single-family homes. The total transaction volume in the Eastern County was 34 percent of the countywide total, and a total of 30 percent of those transactions involved condominium units. Purchase prices generally vary according to unit type and size, with the median sale price being between 30 and 50 percent higher in the Eastern versus the Western County.

Most income-based deed restriction programs set the sale price for deed restricted units based on the maximum income eligible to occupy the unit and then calculate an “affordable” purchase price, though other approaches can also be used. Therefore, to illustrate the value of income-based deed restrictions, BAE compared the home purchase price that would be affordable to households earning up to 120 percent of AMI with the median sale price for units of a size that would be appropriate to accommodate households of different sizes.[4]

As reported in Table 4, moderate-income households in the Western County would require much less assistance compared to households in the Eastern County in order to purchase a single-family home and would require little to no assistance to purchase a condominium unit, though condominium units are relatively rare in the Western County. The gap between what a moderate-income household can afford and the median price for a single-family home equals only $1,551 for a two-bedroom unit, but increases substantially to $127,262 for a three-bedroom unit and $330,461 for a four-bedroom unit. Due to the relatively small difference between the affordable and the median purchase prices, BAE anticipates that few moderate-income home buyers in the Western County would be willing to accept a deed restriction on a

[4] This analysis assumes that households will occupy the smallest unit possible while avoiding overcrowding and will not over consume housing, as is often the case. The calculations discussed here assume one person per bedroom, plus one, when matching households to housing units based on household and unit size.

two-bedroom single-family home or smaller, but may be willing to do so for larger housing units.

Moderate-income households in the Eastern County would struggle to purchase market rate for-sale housing, including either single-family or condominium units. The estimated gap between what moderate-income households can afford to pay and market rate single-family housing prices ranges from $141,840 for a two-person household to $577,961 for a five-person household. The difference is notably lower for condominium units, ranging from $3,840 for a two-person household to $355,461 for a five-person household. Due to the relatively small difference between the affordable and the median purchase prices, BAE anticipates to few moderate-income home buyers in the Eastern County would be willing to accept a deed restriction on one-bedroom condominiums, but may be willing to do so for most single-family homes and larger condominium units.

Table 4: Affordability Gap, Moderate Income Households, Median Sale Price

Affordable Purchase Price	**1-Person**	**2-Person**	**3-Person**	**4-Person**	**5-Person**
Moderate-Income (120% of AMI)	$278,524	$318,160	$357,949	$397,738	$429,539
Market Sale Price (July 2020)	**Studio**	**1-Bedroom**	**2-Bedroom**	**3-Bedroom**	**4-Bedroom**
Eastern County					
Single Family Homes	n.a.	$460,000	$509,000	$750,000	$1,007,500
Condominium Units	$185,000	$322,000	$465,000	$435,000	$785,000
Western County					
Single Family Homes	n.a.	$309,000	$359,500	$525,000	$760,000
Condominium Units	n.a.	n.a.	$149,750	$327,955	n.a.
Affordability Gap	**Studio**	**1-Bedroom**	**2-Bedroom**	**3-Bedroom**	**4-Bedroom**
Eastern County					
Single Family Homes	n.a.	($141,840)	($151,051)	($352,262)	($577,961)
Condominium Units	$93,524	($3,840)	($107,051)	($37,262)	($355,461)
Western County					
Single Family Homes	n.a.	$9,160	($1,551)	($127,262)	($330,461)
Condominium Units	n.a.	n.a.	$208,199	$69,784	n.a.

Sources: HCD, 2020; California Department of Insurance, Homeowners Premium Survey, 2019; ListSource, 2020; BAE, 2020.

Table 5 reports a similar comparison between the home purchase price that would be affordable to achievable-income households at 220 and 245 percent of AMI and the current median sale prices for single-family and condominium units in eastern Placer County. The data generally indicate that all but the largest housing units are still relatively affordable to achievable-income households. For example, households earning 220 percent of AMI could reasonably afford median price single-family and condominium units, with the exception of three- and four-bedroom single-family homes. In addition, the affordability gap for a 220 percent AMI household buying a three-bedroom single-family home is estimated at $20,737. In many cases, home buyers would be willing to spend greater than 30 percent of income to close the gap and make purchasing an unrestricted market rate unit possible, as that would better allow them to benefit from future appreciation. The gap, however, for four-bedroom units is much larger (e.g., equaling close to $600 per month in additional mortgage costs).

Table 5: Affordable Gap, Achievable Income Households, Median Sale Price

Affordable Purchase Price	1-Person	2-Person	3-Person	4-Person	5-Person
MF Achievable-Income (220% of AMI)	$510,346	$583,472	$656,137	$729,263	$787,487
SF Achievable-Income (245% of AMI)	$568,417	$649,685	$730,646	$812,068	$877,051
Market Sale Price (July 2020)	**Studio**	**1-Bedroom**	**2-Bedroom**	**3-Bedroom**	**4-Bedroom**
Eastern County					
Single Family Homes	n.a.	$460,000	$509,000	$750,000	$1,007,500
Condominium Units	$185,000	$322,000	$465,000	$435,000	$785,000
Affordability Gap	**Studio**	**1-Bedroom**	**2-Bedroom**	**3-Bedroom**	**4-Bedroom**
MF Achievable (220% of AMI)					
Single Family Homes	n.a.	$123,472	$147,137	($20,737)	($220,013)
Condominium Units	$325,346	$261,472	$191,137	$294,263	$2,487
SF Achievable (245% of AMI)					
Single Family Homes	n.a.	$189,685	$221,646	$62,068	($130,449)
Condominium Units	$383,417	$327,685	$265,646	$377,068	$92,051

Sources: HCD, 2020; California Department of Insurance, Homeowners Premium Survey, 2019; ListSource, 2020; BAE, 2020.

Stakeholder Interview Findings

As part of this research, BAE conducted ten interviews with stakeholders throughout Placer County. The purpose of the interviews was to primarily collect perspectives regarding the anticipated pricing of deed restrictions, in particular for the Eastern County program. Nonetheless, BAE took the opportunity to also gather input on desired program parameters and ways in which Placer County could position the programs to facilitate market acceptance.

Countywide Program

Local real estate professionals and stakeholders are supportive of the County deed-restriction program, though they note that the initial payment for the deed restriction must ensure home sellers receive adequate compensation for accepting a deed restriction (i.e., purchase price, plus the deed restriction payment, equals market value). Realtors also highlighted potential concerns over prolonged sale transaction timelines due to administrative processes associated with the program. This increased timeline would serve as a major disincentive for home sellers to participate in the program and may reduce the ability to acquire deed restrictions.

In terms of pricing for the deed restrictions, stakeholders suggest the County program should function similar to a down payment assistance program and be priced as the difference between the market value of the unit and the maximum amount the household can pay for the unit based on their current income. Assuming that the County focuses primarily on households at 120 percent of AMI, the affordability gap calculations presented above in Table 4 represent the expected per-unit deed-restriction cost according to stakeholder input. As summarized above, the deed-restriction cost would range from around $100,000 at the low end of the spectrum, to nearly $600,000 at the high end, assuming that the County doesn't establish a cap on the deed restriction price. If such a value cap is established, it should be calibrated in relation to the subsidy required to build a comparable new income-restricted housing unit, which based on research recently conducted by BAE in El Dorado County,[5] could range from around $100,000 to $150,000 per unit restricted at 120 percent of AMI.

The higher cost to acquire income-based deed restrictions in the Eastern County was specifically highlighted by realtors in the North Tahoe region as one potential challenge to the success of the program. The County will need to commit substantial funds to acquire deed-restrictions in this portion of the County due to the high housing prices driven by second-home purchasers. Stakeholders did not present any potential alternative strategies to more efficiently address the current lack of affordable housing, specifically noting that constructing new units will likely be more expensive and will require longer delivery times relative to the proposed deed-restriction program.[6] Rather, the County should strive to generate sufficient funds to cover the increased deed restriction cost and possibly prioritize the use of funds on units below a certain sale price amount to ensure the most efficient use of funds.

Eastern County Program

As noted earlier, the proposed deed restriction program for the Eastern County is oriented toward providing an expanded pool of housing options for workforce households. Therefore, the pricing of residency restrictions under the program will be a function of the consumer spending power of workforce households, as well as the comparative pricing of comparable unrestricted housing units. Stakeholders expressed concern that if the pool of workforce housing units is too small, that the units will be occupied only by the highest income households who otherwise aren't interested in, or able to, secure non-deed restricted units. As such, it will be important to develop as large a pool of residency restricted housing units as possible, which will help to provide more housing opportunities for lower income households.

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[5] Based on the cost to produce small-lot single-family homes as of spring 2020.

[6] For example, research conducted by BAE on behalf of Placer County in early 2020 identified an average cost for the development of new condominium units in the Lake Tahoe Basin (similar to 8303 North Lake Boulevard in Kings Beach) of nearly $780,000 per unit. While these costs represent the higher end of the likely range for condominium development in Eastern Placer County, these figures readily illustrate that reliance on new construction may come with a higher cost compared to better utilization of the existing housing stock.

The value of the payment made to the participating homeowner in exchange for accepting the deed/residency restriction must be sufficient to make unrestricted housing units unattractive by comparison. Local realtors interviewed for this research, many of whom are familiar with the Vail InDeed program, indicate that the effective price (i.e., the market price minus the value of the program/deed restriction payment) would need to be ten to 20 percent lower than market rate in order to provide an adequate incentive to buyers. Some stakeholders indicated that the 15 to 17 percent experienced in Vail sounds about right and may represent a reasonable starting assumption for the purposes of developing the Placer County program. Based on this assumption, BAE estimates that the amount that would need to be paid to participating households in exchange for establishing deed restrictions under the Eastern County program would range from approximately $30,000 to $127,840, with an average of roughly $83,800, based on the value of recent condominium and single-family home sales and assuming a deed restriction price set at 16 percent of the unit's fair market value.[7]

Similar to the countywide program, local realtors recommend that the County should ensure that the deed restriction program does not prolong the home selling process, which would otherwise discourage participation in the program. To maximize the impact of the program, stakeholders recommended the County prioritize the use of funds on units within existing communities with resident-serving amenities and set a maximum purchase price or fee payment, which could align with the TRPA "achievable" housing sale prices.

In general, stakeholders are supportive of the program, specifically noting that it will eventually create an alternative housing market for full-time residents which increases based on local income growth rather than external market forces. Realtors specifically recommended that the County market the program to local realtors who can inform incoming home buyers and potential home sellers of this alternative option. In terms of acquiring the deed restriction, stakeholders recommended focusing on incoming home buyers, rather than current homeowners, as the target for the program. The program could function similar to a resident-oriented downpayment assistance program, helping incoming households access the for-sale market in return for a restriction on the future sale of the unit. Stacy Caldwell of the Tahoe Truckee Community Foundation, which is functioning as a convener for the regional Mountain Housing Council, expressed the desire among the community for programs that can help to stabilize households that are at risk for displacement within the current market, with a particular focus on households who are renting units that then often get converted into second homes or short-term rentals upon sale by the owner. Therefore, she particularly emphasized the need for the program to be open to existing resident households who currently rent their accommodations and, perhaps in a future phase of implementation, to existing owner

[7] Based on sales that occurred between July 31, 2019, and July 31, 2020 within the Eastern County. Excludes sales priced at below $185,000 or above $800,000. Units priced below this level are assumed to be already affordable to low-income households, while homes priced above this level are affordable only to the very largest and wealthiest households (i.e., the maximum price affordable to a four-person SF Achievable Household earning 245 percent of AMI is $812,000).

households who are looking for move-up opportunities where few other market rate options exist (these households often get discouraged and move to Reno as the nearest alternative).

A number of stakeholders expressed concern that the Eastern County program would not involve an income cap or restrictions on the resale value of participating housing units. The concern primarily focuses on the need to ensure long-term affordability of housing and a concern that the lack of such requirements would allow County funds to be used on units that are, or become, unaffordable to some workforce households. Following further conversation regarding the theoretical underpinnings of the program, those interviewed for this research generally agreed that the program is likely worth trying as currently envisioned. The key factor is that households who have sufficient incomes to afford unrestricted housing units will purchase housing on the open market to avoid having limitations on usage and future resale value. This should, theoretically, keep higher-income households who don't need assistance from participating of the program. Therefore, households looking to purchase participating housing units would only compete against other local workforce households who are otherwise unable to participate in the unrestricted housing market which, by definition, will help to keep the price of housing at a level that is more closely tied to workforce household incomes. Similarly, this programmatic structure helps to reduce some of the barriers to market acceptance that have impacted other income-restricted for-sale housing efforts in the past, such as the Boulders in Truckee. If there is no overt restriction on resale price, the thinking goes that households may be more willing to accept an occupancy restriction.

An additional conversation with Jean Diaz, Executive Director of the St. Joseph's Community Land Trust (SJCLT), highlighted a complementary and/or alternative program model that may also be of interest to Placer County as it works to facilitate new for-sale housing opportunities for workforce households. The Tahoe Affordable Home Ownership Enabling (TAHOE) Program aims to facilitate home ownership opportunities for households earning 120 percent of AMI or less within the Lake Tahoe Basin. The program provides for assistance to qualifying first-time homebuyers, the direct purchase of a property by the SJCLT, or the provision of assistance to an existing homeowner at risk of displacement. In all cases, the land is enrolled in the SJCLT portfolio and comes under SJCLT ownership, while the improvements are made available for ownership by a qualifying household under a 99-year ground lease. According to Mr. Diaz, the level of subsidy provided will likely be similar to that anticipated under the proposed Eastern County deed-restriction program. Long-term affordability is ensured beyond the 55 years that is possible under a deed-restriction model, since the SJCLT owns the land. Potential downsides to this type of model include the need to target incomes below 120 percent of AMI due to the SJCLT's obligations under its by-laws and applicable non-profit tax laws. Also, the limits on the appreciation of the property and lack of ownership in the land (i.e., ability to make decisions about how the property is used and improved) may discourage more widespread use of the model compared to the proposed Eastern County deed restriction program. Nonetheless, the TAHOE program represents an important companion program that should be considered as part of the broader regional affordable and workforce housing strategy.

Both Programs

Many stakeholders also clearly highlighted the need to simplify the program eligibility and administrative requirements to the extent possible to encourage participation. The program will also need to be staffed by persons experienced in the real estate industry, who know how to structure the program to interface seamlessly with the typical mortgage underwriting process. This knowledge will also be key in marketing the program to real estate brokers, mortgage lenders, etc., who's cooperation will be critical to the success of the program. Also, as noted above, the program will be significantly hindered to the extent to which the administration of the program delays the closing of the transaction, as real estate brokers and sellers will be particularly discouraged to take on any unnecessary complexity and delay. Nonetheless, stakeholders also highlighted a deep willingness within the community, particularly in eastern Placer County, to secure housing for the benefit of the community, which should be leveraged to the extent possible. To do so, the program will need to be structured to compensate participants adequately, while not burdening them administratively.

COMMUNITY BENEFITS ASSESSMENT

In addition to evaluating the approximate value associated with residential deed restrictions, as discussed in the prior section, this report also includes a broad evaluation of some of the benefits that may accrue to the Placer County community as a result of implementing the proposed deed restriction program. The focus is generally on describing the benefits of the Eastern County program, as the countywide program is more closely oriented towards providing ownership housing opportunities for existing resident workforce households and, as a result, the quantitative economic benefits would be limited, though the community development benefits are likely to be wide ranging.

More specifically, the following section considers the relative increase in economic activity that results from the relocation of workforce households into Eastern Placer County using the IMPLAN economic model. The impacts are then roughly juxtaposed against the direct costs of the program and expressed as a "return on investment". In addition, the analysis also discusses estimated reductions in vehicle miles travelled (VMT) and associated motor vehicle emissions, increases in school enrollment and associated school district funding, and reduced costs to employers resulting from improved workforce retention.

Local Economic Benefits and Return on Investment

The following section estimates the general economic benefits that may accrue as a result of the County's implementation of the two proposed deed-restriction programs. For the purposes of the benefit analysis, it is assumed that the deed restrictions would be associated with an increase in the number of full-time residents, which would in turn result in additional resident expenditures in the area for goods and services, creating additional jobs for workers serving the needs of these households. To the extent that participating households already live within the region and the housing units they vacate to move into deed restricted units are not re-occupied by households that are relocating into the area, the direct economic benefits to the County would be less than discussed below; however, it can be argued that in these instances, creation of the deed restricted unit prevents the loss of equivalent economic benefits.

Economic Benefits

To estimate the anticipated economic impacts of deed restrictions, this study uses IMPLAN, a widely used economic modeling software package.[8] Core to the model is an input-output dollar flow table. For a specified region, the input-output table accounts for all dollar flows between different sectors of the economy. Using this information, IMPLAN models the way income is spent and re-spent in other sectors of the economy, generating waves of economic

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[8] BAE did not model the economic impacts associated with the countywide program, as households participating in that program are more likely to represent existing resident workforce households and, therefore, the economic benefits of the program are expected to be marginal, though the community development benefits are likely to still be important to the County.

activity and job creation, or so-called "economic multiplier" effects. Once the economic events have been entered into the model, IMPLAN reports the following types of impacts:

- Direct Impacts. Direct impacts refer to the set of producer or consumer expenditures applied to the predictive model for impact analysis. It is the amount of spending available to flow through the local economy. IMPLAN then displays how the local economy will then responds to these initial changes. The direct impacts may equal the amount of spending input into the model, depending on a variety of factors.
- Indirect Impacts. The indirect impacts refer to the impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks from the local economy, either through imports or by payments to income and taxes.
- Induced Impacts. The induced impacts refer to an economy's response to an initial change (direct impact) that occurs through re-spending of income according to household spending patterns. When households earn income, they spend part of that income on goods and services, such as food and healthcare. IMPLAN models households' disposable income spending and distributes it through the local economy.

For the purpose of this analysis, the primary economic event is an increase in local household spending from the new full-time resident households in deed-restricted housing units. This impact is modelled by inputting the assumed household incomes for the new households into the IMPLAN model, which uses various government data sources to estimate disposable income and resulting household expenditures. This spending results in *induced* economic impacts. For instance, household expenditures generate jobs for cashiers and baggers at grocery stores patronized by the households. The process initiated by household expenditures continues as these workers and the businesses they work for spend money in subsequent transactions, supporting employment at places other than the initial point of sale, such as wholesalers supplying retail stores, or truck drivers delivering goods to those stores. In turn, these businesses and workers spend money to generate additional activity in the local economy. These are all part of the *induced* impacts linked to the household expenditures.

<u>Countywide Program</u>

One of the key assumptions driving this analysis is the County's goal of at least securing 10 new deed restrictions per year as part of the countywide deed restriction program. The IMPLAN analysis uses this goal as its assumption for the annual change in the number of households generating new expenditures in the region. Households served by the program are likely to have incomes that range up to 120 percent of AMI, with the price of participating homes being set assuming the maximum allowable income. The analysis also assumes that all 10 of the participating programs are new and are not existing residents of Placer County.

Estimated Economic Impacts

The results of the IMPLAN analysis are shown in Table 6, based on an assumed 10 new permanent resident workforce households. Using this approach, BAE estimates that the introduction of approximately $1.035 million in associated new resident household income to the County would be sufficient to support 5.7 new full-time jobs and $940,588 in economic output per year. Over time as the County secures additional deed restrictions, these impacts would likely have a significant cumulative effect on the local economy.

Table 6: Annual Economic Impacts Deed Restricted Housing, Countywide

Employment	5.7
Labor Income	$305,980
Value Added	$581,195
Output	$940,588

Notes:
(a) All impacts are the annual induced impacts resulting from the expenditures in Placer County resulting from the presence of 10 new households in one year in deed-restricted housing.

Sources: U.S. Census 2014-2018 American Community Survey Public Use Microdata Sample; IMPLAN; BAE, 2020.

Estimated Fiscal Impacts

While a complete fiscal analysis is beyond the scope of this research, new deed restricted housing units and their occupants would typically generate an increase in local sales taxes, but likely a modest decrease in local property taxes, compared to when the property was owned as a second home.

The sales tax analysis is derived from household expenditure patterns and sales data published by the California Department of Tax and Fee Administration (CDTFA). After an adjustment for non-taxable sales, per household retail and food service sales are estimated at $53,362 per year, with total taxable sales for 10 households at $533,625 annually. Applying the standard one percent Bradley-Burns sales tax rate for local jurisdictions, the local sales tax generation would be approximately $5,336 per year. Local jurisdictions would also receive an additional 0.25 percent, which is allocated to the road fund.

Table 7: Household Sales Tax Impacts, Countywide

	Taxable Retail Sales	Taxable Sales per HH
Motor Vehicle and Parts Dealers	$2,273,593,436	$15,273
Home Furnishings and Appliance Stores	$465,452,883	$3,127
Building Material and Garden Equipment and Supplies Dealers	$561,027,226	$3,769
Food and Beverage Stores	$362,573,299	$2,436
Gasoline Stations	$1,125,171,654	$7,559
Clothing and Clothing Accessories Stores	$541,008,869	$3,634
General Merchandise Stores	$845,554,246	$5,680
Food Services and Drinking Places	$920,512,409	$6,184
Other Retail Group	$848,642,941	$5,701
Total Retail and Food Services	**$7,943,536,963**	**$53,362**
Total Households, 2020		148,860
Total Taxable Sales from 10 Units/Households		**$533,625**
Total Annual Local Sales Tax Benefit @ 1%		**$5,336**

Sources: Esri; BAE, 2020.

The property tax analysis assumes that the market-rate unit sale price without a deed restriction in place would equal around $580,000.[9] With a deed restriction valued at $182,262, the average sale price is assumed to be $397,738 for a four-person household at 120 percent of AMI. For the sale of 10 deed-restricted properties a year, the total sales value would be approximately $3.97 million, resulting in $39,774 in annual property taxes. This is just over $18,000 less in estimated property taxes than would have accrued to the county on the same units without deed restrictions in place. It should be noted, however, that for properties that have been under the same ownership for a long time, the new property taxes that would likely accrue to the County following turnover of the property would still likely be substantial, though they would be somewhat less that they would be in the absence of the deed restriction. In those instances, there would be no decline in property tax revenues, only an opportunity cost.

[9] Based on the median sale price for a three-bedroom housing unit in unincorporated Placer County between July 31, 2019, and July 31, 2020.

Table 8: Property Tax Impacts of Deed-Restricted Housing, Countywide

	Average Sale Price	Total Sales	Property Tax
Without Deed Restriction	$580,000	$5,800,000	$58,000
With Deed Restriction	$397,738	$3,977,380	$39,774
Net Annual Change		-$1,822,620	-$18,226

Note: Based on the sale of 10 deed-restricted units in one year, and a 1% property tax rate.

Source: BAE, 2020.

Return on Investment

This analysis estimates the approximate return on investment associated with purchase of voluntary deed restrictions using measures of benefits as discussed above, including the total economic output generated by new worker households as projected by IMPLAN, and the revenues that accrue to local jurisdictions. The initial County investment in each deed restriction is modelled as a one-time event, but the benefits are ongoing.

As discussed above, the average amount that the County may need to pay to secure deed restriction that limit use of residential properties to households earning 120 percent of AMI or less under the countywide program is approximately $182,000 per unit. Based on this estimate, the total annual cost for the program would be approximately $1.8 million. BAE estimates that the economic impacts of the program, assuming that all participant households are new to Placer County, is approximately $940,588 per year, which would accrue annually throughout the life of the deed restricted and would be compounded annually as the County enrolls more units in the program. This means that each year, the direct, indirect, and induced economic impacts of the program are equal to approximately 52 percent of the initial investment, which would then be sustained over the course of the 55-year deed restriction term. BAE estimates that introduction of 10 new resident workforce households to the County would generate just under $5,400 per year in additional sales taxes to local governments in the region per year (i.e., $540 per unit per year). As indicated in Table 9, this represents a return on investment of only 0.3 percent annually. Nonetheless, these impacts will accrue annually over time, which increases the benefit of the program. For example, if we assume that these impacts accrue at roughly the same level over a 10-year period, the net present value of that spending would equal approximately $45,519 in 2020 dollars, which equals roughly a 2.5 percent return over 10 years.

Table 9: Estimated Return on Investment, Countywide

One-Time Deed Restriction Costs		
$1,820,000	Total	
$182,000	Per deed restriction	
Econoic Impacts (Output)		**Estimated ROI** (b)
$940,588	Per year	52%
$9,405,875	Ten-Year Total	
$8,023,402	Discounted Value (c)	441%
Sales Tax impacts		**Estimated ROI** (b)
$5,336	Per year	0.3%
$53,362	Ten-Year Total	
$45,519	Discounted Value (c)	2.5%

Notes:
(a) Figures represent the estimated return on investment associated with the acquisition of 10 deed restrictions countywide.
(b) Calculated as the value of the impact divided by the initial investment.
(c) Assuming a three percent discount rate.

Source: BAE, 2020.

Eastern County Program

The impact area used to analyze the Eastern County program is the Truckee North Tahoe region, which is defined by a set of Zip Codes, as shown in Appendix A. This area generally includes the portion of Placer County that extends from Donner Summit to the Nevada state line and the north and west shores of Lake Tahoe. The impact area also notably includes the Town of Truckee. From an economic perspective, it is important to include the Town within the impact area, as the Town represents a primary destination for most resident services and retail shopping within the region.

Another key assumption driving the analysis is the County's goal of securing 40 new deed restrictions per year in eastern Placer County. The IMPLAN analysis uses this goal as its assumption for the annual change in the number of households generating new expenditures in the region. Per the analysis above, the households served are likely to have incomes that range from moderate income up to 245 percent of AMI. Within this range, the distribution of the new workforce households is assumed to mirror the distribution of workforce households that currently live within the region by income and household size. The workforce household distribution is derived from an analysis of data from the 2014-2018 American Community Survey (ACS) Public Use Microdata Sample (PUMS), based on characteristics of households living in an area encompassing the Truckee North Tahoe Region.

Estimated Economic Impacts

The results of the IMPLAN analysis are shown in Table 10, based on an assumed 40 new permanent resident workforce households. Using this approach, BAE estimates that the introduction of approximately $4.2 million in associated new resident household income to the region would be sufficient to support 2.7 new full-time jobs and $379,259 in economic output per year. Over time as the County secures additional deed restrictions, these impacts would likely have a significant cumulative effect on the local economy. The relatively limited impacts of introducing 40 new resident households at the identified income levels is generally due to the limited availability of consumer goods and services within the region (i.e., most of the spending leaks out of the region), and would be significantly less if the Town of Truckee were excluded from the analysis. Even for local retail expenditures, a substantial amount of the expenditures flow out of the area as both households and local retail outlets must purchase goods from elsewhere due to very limited local availability. AE anticipates that reserving housing for permanent residents is an important step towards providing a year-round base of demand that can support an expansion of the retail and service sector in the Eastern County, which will help to reduce the flow of dollars from resident households to retail and service outlets outside of the region and can engender a virtuous cycle of economic development.

Table 10: Annual Economic Impacts of Deed Restricted Housing, Eastern County

Employment	2.7
Labor Income	$121,759
Value Added	$234,041
Output	$379,259

Notes:
(a) All impacts are the annual induced impacts resulting from the expenditures in the Truckee North Tahoe Region resulting from the presence of 40 new households in one year in deed-restricted housing in Eastern Placer County.

Sources: U.S. Census 2014-2018 American Community Survey Public Use Microdata Sample; IMPLAN; BAE, 2020.

Estimated Fiscal Impacts

While a complete fiscal analysis is beyond the scope of this research, new deed restricted housing units and their occupants would typically generate an increase in local sales taxes, but likely a modest decrease in local property taxes, compared to when the property was owned as a second home.

The sales tax analysis is derived from household expenditure patterns and actual local sales as estimated by Esri's Retail MarketPlace Potential Report, as shown in Appendix B. Given the Truckee North Tahoe region's somewhat limited retail base, some of the retail sales and resulting retail tax dollars generated by new full-time residents would "leak" out of the region, to the Reno area to the east, the Sacramento region, and elsewhere. The analysis here assumes per household spending for the new households based on either demand per household or sales per household per the Esri report, whichever number is smaller. After an adjustment for non-taxable sales, per household retail and food service sales are estimated at $21,207 per annum, with total taxable sales for 40 households at $848,267 annually. Applying the standard one percent Bradley-Burns sales tax rate for local jurisdictions, the local sales tax generation would be approximately $8,483 annually. Local jurisdictions would also receive an additional 0.25 percent, which is allocated to the road fund. The majority of the sales tax revenue generated by participating households would likely accrue to the Town of Truckee, as there are very limited consumer service and retail opportunities within unincorporated Placer County, with the exception of visitor serving uses in many of the resorts and Town Centers.

Table 11: Household Sales Tax Impacts, Eastern County

	Retail Potential	Retail Sales	Local Expenditures	Taxable Adjustment	Local Taxable Sales per HH
Motor Vehicle & Parts Dealers	$8,509	$2,646	$2,646	80%	$2,117
Furniture & Home Furnishings Stores	$1,544	$1,070	$1,070	100%	$1,070
Electronics & Appliance Stores	$1,527	$368	$368	100%	$368
Bldg Materials, Garden Equip. & Supply Stores	$2,510	$2,802	$2,510	100%	$2,510
Food & Beverage Stores	$6,620	$10,935	$6,620	33%	$2,184
Health & Personal Care Stores	$2,837	$1,282	$1,282	40%	$513
Gasoline Stations	$3,578	$5,141	$3,578	100%	$3,578
Clothing & Clothing Accessories Stores	$2,992	$1,670	$1,670	100%	$1,670
Sporting Goods, Hobby, Book & Music Stores	$1,314	$5,433	$1,314	100%	$1,314
General Merchandise Stores	$6,859	$140	$140	100%	$140
Miscellaneous Store Retailers	$1,542	$952	$952	100%	$952
Nonstore Retailers	$1,221	$262	$262	100%	$262
Food Services & Drinking Places	$4,528	$9,919	$4,528	100%	$4,528
Total Local Taxable Sales per Households					**$21,207**
Total Households, 2020					14,243
Total Taxable Sales from 40 Units/Households					**$848,267**
Total Annual Local Sales Tax Benefit @ 1%					**$8,483**

Sources: Esri; BAE, 2020.

The property tax analysis assumes that the market-rate unit sale price without a deed restriction in place averages $523,750, as discussed in the previous affordability gap analysis. With a deed restriction valued at $83,800, the average sale price is assumed to be $439,950. For the sale of 40 deed-restricted properties a year, the total sales value would be approximately $17.6 million, resulting in $176,000 in annual property taxes. This is approximately $34,000 less in estimated property taxes than would have accrued to the county on the same units without deed restrictions in place. It should be noted, however, that for properties that have been under the same ownership for a long time, the new property taxes that would likely accrue to the County following turnover of the property would still likely be substantial, though they would be somewhat less that they would be in the absence of the deed restriction. In those instances, there would be no true decline in property tax revenues, only an opportunity cost associated with the forgone future revenue due to the deed restriction.

Table 12: Property Tax Impacts of Deed-Restricted Housing, Eastern County

	Average Sale Price	Total Sales	Property Tax
Without Deed Restriction	$523,750	$20,950,000	$209,500
With Deed Restriction	$439,950	$17,598,000	$175,980
Net Annual Change		-$3,352,000	-$33,520

Note: Based on the sale of 40 deed-restricted units in one year, and a 1% property tax rate.

Source: BAE, 2020.

Return on Investment

This analysis estimates the approximate return on investment associated with purchase of voluntary deed restrictions using measures of benefits as discussed above, including the total economic output generated by new worker households as projected by IMPLAN, and the revenues that accrue to local jurisdictions. The initial County investment in each deed restriction is modelled as a one-time event, but the benefits are ongoing.

Assuming that the average cost to the County per deed restriction established in the Eastern County is $83,800, then the total annual cost for the program would be approximately $3.35 million. BAE estimates that the economic impacts of the program, assuming that all participant households are new to the Eastern County, is approximately $379,259 per year. This means that each year, the direct, indirect, and induced impacts of the program are equal to approximately 11 percent of the initial investment. However, due to the nature of the retail landscape in the North Tahoe region, BAE estimates that introduction of 40 new resident workforce households to the region would generate less than $9,000 per year in additional sales taxes to local governments in the region. As indicated in Table 13 this represents a return on investment of only 0.3 percent annually. Nonetheless, these impacts will accrue annually over time, which increases the benefit of the program. For example, if we assume that these impacts accrue at roughly the same level over a 10-year period, the net present value of that spending would equal approximately $72,359 in 2020 dollars, which equals roughly a two percent return over 10 years.

Table 13: Estimated Return on Investment

One-Time Deed Restriction Costs		
$3,352,000	Total	
$83,800	Per deed restriction	
Econoic Impacts (Output)		**Estimated ROI** (b)
$379,259	Per year	11%
$3,792,590	Ten-Year Total	
$3,235,156	Discounted Value (c)	97%
Sales Tax impacts (d)		**Estimated ROI** (b)
$8,483	Per year	0.3%
$84,830	Ten-Year Total	
$72,359	Discounted Value (c)	2.2%

Notes:
(a) Figures represent the estimated return on investment associated with the acquisition of 40 deed restrictions through the Eastern
County workforce housing deed restriction program.
(b) Calculated as the value of the impact divided by the initial investment.
(c) Assuming a three percent discount rate.
(d) Estimated for the Truckee North Tahoe region.

Source: BAE, 2020.

Reduction in Vehicle Miles Traveled (VMT)

Recognizing that the goal of the Eastern County deed restriction program is to facilitate the recruitment and retention of workers, who otherwise face strong incentives to relocate outside of the region and commute in, one of the more prominent direct impacts of the proposed program would be a decrease in the in-commute rate and a subsequent reduction in VMT and associated motor vehicle emissions. To the extent that the countywide program also functions to incentivize workers to relocate into Placer County from elsewhere, the broader countywide program would also have direct positive VMT impacts on the community. The following analysis focuses on the Eastern County program, as the County did not provide similar information on in-commute rates and VMT impacts associated with the countywide program.

According to an August 4th memorandum provided to County staff by Kittelson and Associates, which is attached as Appendix A, the average worker in the Eastern County that lives outside of that area travels approximately 38.8 miles each way for work, or 79.6 miles per workday. By comparison, the average distance travelled by workers who live within the Eastern County is 4.8 miles each way, or 9.6 miles per workday. This means that worker households who relocate into the Eastern County could potentially reduce their daily commute by an average of 70 miles per workday. However, under the proposed Eastern County deed restriction program, workers could live up to 20 miles from their place of work, in which case the worker would reduce their VMT by approximately 36 miles per workday. Therefore, based on these estimates, Kittelson and Associates concluded that the program could result in a reduction in commute related VMT for participating workers of between 45 and 88 percent, on average.

Impacts on School Enrollment and Funding

In most communities throughout California, an increase in the number of school age children living and going to school in the community directly correlates to an increase in State funding for schools due to the nature of local and state funding formulas. The following subsection discusses the anticipated impacts of the proposed deed restriction programs on school funding both countywide and in eastern Placer County specifically.

From a purely fiscal perspective, there are generally two different types of school districts in California, including "revenue limit" districts and "basic aid" districts. The California Constitution guarantees a minimum level of funding for schools throughout the state. Revenue limit districts include those where local funding for public schools, which mainly comes from local property taxes, is less than the minimum guaranteed by the State. For revenue limit districts, the difference between local revenue and the revenue limit is supplied by the State and is allocated based on the district's average daily attendance (ADA). By comparison, basic aid districts include those where local tax revenues exceeds the State revenue limit (i.e., the constitutionally guaranteed amount). Basic aid districts, therefore, receive little in the way of supplemental funding from the State on an ADA basis.

An expansion of the student body typically results in an increase in the total State funding that flows to revenue limit districts as a result of the ADA based allocation formula. By comparison, funding for basic aid districts is typically only marginally impacted by an increase in the student body, with average funding per student actually decreasing as a result since the district then needs to spread the same funding over a larger student body unless this would result in the district dipping below its revenue limit in which case state funds would flow to ensure that total district funding remains at the revenue limit level.

Countywide Program

According to data published by the U.S. Census Bureau as part of the Public Use Microdata Sample (PUMS) data set, workforce households in Placer County have approximately three school age children (i.e., of nursery school age through 12th grade) for every four households. This equals a student generation rate of 0.75 school age children per workforce household. Broken down by private versus public school attendance, as shown in Table 14, there are approximately 0.68 public school children per workforce household. Assuming that the County secures at least ten new deed restrictions per year countywide through the income-restricted program, the County may reasonably expect to increase the number of school age children enrolled in public schools by just under seven students per year. According to the Placer County Office of Education, the average amount of variable revenue that school districts in Placer County receive on an average daily attendance (ADA) basis is $9,500 per year. Assuming that the countywide program results in up to seven new students per year, BAE estimates that school districts in the County could receive up to an additional $66,500 per year in supplemental school funding.

Table 14: Student Generation Rates by Grade and School Type, Countywide

	Students per Worker Household		
School Grade	Public	Private	Total
Nursery school/preschool	0.0442	0.0284	0.072541
Kindergarten	0.0595	0.0077	0.067243
Grade 1	0.0770	0.0026	0.079606
Grade 2	0.0471	0.0028	0.049959
Grade 3	0.0502	0.0011	0.051347
Grade 4	0.0443	0.0085	0.052734
Grade 5	0.0320	0.0074	0.039425
Grade 6	0.0472	0.0016	0.048887
Grade 7	0.0524	0.0042	0.056582
Grade 8	0.0417	0.0000	0.041696
Grade 9	0.0636	0.0009	0.064593
Grade 10	0.0434	0.0003	0.043714
Grade 11	0.0332	0.0000	0.033243
Grade 12	0.0467	0.0021	0.048824
Total	**0.6827**	**0.0677**	**0.750394**

Notes:
(a) Based on existing worker households in Placer County.
(b) Worker households are defined as those with at least one worker currently employed and typically working 30 or more hours per week.

Sources: U.S. Census 2014-2018 American Community Survey Public Use Microdata Sample; BAE, 2020.

Eastern County Program

As part of the 2016 Truckee North Tahoe Regional Workforce Housing Needs Assessment, BAE documented the broad decline in population within eastern Placer County and the resulting impact on public service provision. There is, as a result, concern among some in the community is that there is a minimum number of enrolled students who are needed to ensure that particular campuses, as well as the district as a whole, can secure adequate funding to cover the costs of daily operations. The thinking goes that if the number of students falls below the minimum threshold, the campus and/or district could become insolvent, leaving students with little choice but to be bussed long distances to schools in nearby urban centers.

According to the PUMS data, households with at least one worker that is employed within the two Public Use Microdata Areas (PUMAs) that include eastern Placer County and the Truckee area have an average of 0.57 school age children. As shown in Table 15 this can be further broken down by students who are attending public versus private school. According to this data, households with persons working in eastern Placer County have an average of 0.5 children enrolled in public schools and 0.7 children enrolled in private schools. Assuming that the deed restriction program is successful at securing 40 deed restrictions per year, and that those new deed restrictions are on homes that are occupied by workforce households who do not already live within the region, the deed restriction program could result in the introduction of 23 new school age children per year, including 20 who would likely be enrolled in the local public school system.

Table 15: Student Generation Rates by Grade and School Type, Eastern County

	Students per Worker Household		
School Grade	**Public**	**Private**	**Total**
Nursery school/preschool	0.0246	0.0169	0.041519
Kindergarten	0.0338	0.0096	0.043372
Grade 1	0.0335	0.0036	0.037148
Grade 2	0.0350	0.0016	0.036583
Grade 3	0.0374	0.0049	0.042338
Grade 4	0.0416	0.0050	0.046552
Grade 5	0.0323	0.0062	0.038456
Grade 6	0.0342	0.0051	0.039314
Grade 7	0.0307	0.0032	0.03391
Grade 8	0.0347	0.0018	0.036485
Grade 9	0.0490	0.0031	0.052172
Grade 10	0.0399	0.0022	0.042085
Grade 11	0.0377	0.0006	0.038319
Grade 12	0.0357	0.0075	0.043119
Total	**0.5002**	**0.0711**	**0.57137**

Notes:
(a) Based on existing worker households in the two Public Use Microdata Areas covering Nevada County and eastern Placer County.
(b) Worker households are defined as those with at least one worker currently employed and typically working 30 or more hours per week.

Sources: U.S. Census 2014-2018 American Community Survey Public Use Microdata Sample; BAE, 2020.

According to Todd Rivera, Executive Director of Business Services for the Tahoe Truckee Unified School District (TTUSD), the TTUSD is a basic aid district. Mr. Rivera indicates that, despite public concern, an increase in the number of school age children living in the district would result in a reduction in the district's per student funding level, since the fixed amount of local tax revenue that the district receives would need to be divided over a larger student body. While the district would receive a small amount of new revenue from the State on an ADA basis, the impact would be marginal. He also indicates that the student body would have to increase quite substantially in order to shift the district from basic aid status to revenue limit status, recognizing that the district currently receives approximately $15 million in local tax revenue in excess of the State revenue limit.

Benefits of Improved Worker Recruitment/Retention

Stakeholders throughout Placer County, but particularly within the Eastern County, cite an inability to find and retain workers as a key impact of the existing housing crisis. As part of this research, BAE interviewed local business associations to get a sense of how they believe businesses will be impacted by the proposed programs. According to these stakeholders, the most direct benefit to businesses of an expanded workforce housing supply is a direct reduction in worker recruitment and training costs and associated inefficiencies. Worker recruitment can take a significant amount of time and requires businesses to not only spend directly on things like advertisements and onboarding materials, but also on the administrative staff time necessary for recruitment, completion of the required paperwork, and conducting new worker training. Stakeholders also report that it can take at least several months to a number of years to fully train a new staff person, depending on their role in the organization, so losing experienced staff introduces significant inefficiencies into a variety of important work flows. Successful workforce retention also has a notable impact on workforce morale, as workers learn over time to work as a team, and breaking up the team has a psychological impact on the remaining workers that can impact productivity and, in some cases, works against worker retention.

Many of those interviewed highlighted the sense of community that is developed among their employees each season and notes the sense of loss upon the departure of many colleagues.

APPENDICES

Appendix A: Truckee North Tahoe Region by Zip Codes

95724
95728
96111
96140
96141
96142
96143
96145
96146
96148
96160
96161
96162

Source: *Truckee North Tahoe Regional Workforce Housing Needs Assessment*, BAE, 2016.

Appendix B: Esri Retail Report

Retail MarketPlace Profile

Zip Codes for IMPLAN Analysis
95724 (Norden) et al.
Geography: ZIP Code

Prepared by Esri

Summary Demographics	
2020 Population	34,497
2020 Households	14,243
2020 Median Disposable Income	$64,643
2020 Per Capita Income	$47,694

NOTE: This database is in mature status. While the data are presented in current year geography, all supply- and demand-related estimates remain vintage 2017.

2017 Industry Summary	NAICS	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/Surplus Factor	Number of Businesses
Total Retail Trade and Food & Drink	44-	$649,212,913	$607,050,368	$42,162,545	3.4	497
Total Retail Trade	44-45	$584,718,207	$465,776,859	$118,941,348	11.3	328
Total Food & Drink	722	$64,494,706	$141,273,509	-$76,778,803	-37.3	169

2017 Industry Group	NAICS	Demand (Retail Potential)	Supply (Retail Sales)	Retail Gap	Leakage/Surplus Factor	Number of Businesses
Motor Vehicle & Parts Dealers	441	$121,194,884	$37,687,739	$83,507,145	52.6	25
Automobile Dealers	4411	$95,916,339	$2,893,404	$93,022,935	94.1	3
Other Motor Vehicle Dealers	4412	$14,768,847	$29,849,555	-$15,080,708	-33.8	15
Auto Parts, Accessories & Tire Stores	4413	$10,509,698	$4,944,780	$5,564,918	36.0	7
Furniture & Home Furnishings Stores	442	$21,997,463	$15,245,893	$6,751,570	18.1	20
Furniture Stores	4421	$11,443,682	$5,492,270	$5,951,412	35.1	7
Home Furnishings Stores	4422	$10,553,781	$9,753,623	$800,158	3.9	13
Electronics & Appliance Stores	443	$21,749,399	$5,237,977	$16,511,422	61.2	10
Bldg Materials, Garden Equip. & Supply Stores	444	$35,743,466	$39,915,599	-$4,172,133	-5.5	34
Bldg Material & Supplies Dealers	4441	$33,263,516	$38,056,730	-$4,793,214	-6.7	31
Lawn & Garden Equip & Supply Stores	4442	$2,479,950	$1,858,869	$621,081	14.3	3
Food & Beverage Stores	445	$94,283,699	$155,750,804	-$61,467,105	-24.6	40
Grocery Stores	4451	$80,461,880	$147,572,598	-$67,110,718	-29.4	22
Specialty Food Stores	4452	$6,655,172	$4,799,024	$1,856,148	16.2	13
Beer, Wine & Liquor Stores	4453	$7,166,647	$3,379,182	$3,787,465	35.9	5
Health & Personal Care Stores	446,4461	$40,412,749	$18,265,619	$22,147,130	37.7	15
Gasoline Stations	447,4471	$50,966,707	$73,225,710	-$22,259,003	-17.9	21
Clothing & Clothing Accessories Stores	448	$42,617,845	$23,782,795	$18,835,050	28.4	50
Clothing Stores	4481	$30,285,444	$17,116,219	$13,169,225	27.8	36
Shoe Stores	4482	$5,207,272	$2,767,708	$2,439,564	30.6	6
Jewelry, Luggage & Leather Goods Stores	4483	$7,125,129	$3,898,868	$3,226,261	29.3	8
Sporting Goods, Hobby, Book & Music Stores	451	$18,715,874	$77,375,459	-$58,659,585	-61.0	60
Sporting Goods/Hobby/Musical Instr Stores	4511	$16,160,529	$76,907,874	-$60,747,345	-65.3	59
Book, Periodical & Music Stores	4512	$2,555,345	$467,585	$2,087,760	69.1	1
General Merchandise Stores	452	$97,688,496	$1,993,436	$95,695,060	96.0	3
Department Stores Excluding Leased Depts.	4521	$58,645,776	$1,034,942	$57,610,834	96.5	1
Other General Merchandise Stores	4529	$39,042,720	$958,494	$38,084,226	95.2	2
Miscellaneous Store Retailers	453	$21,957,303	$13,565,210	$8,392,093	23.6	46
Florists	4531	$1,081,038	$269,386	$811,652	60.1	4
Office Supplies, Stationery & Gift Stores	4532	$5,018,559	$1,268,839	$3,749,720	59.6	10
Used Merchandise Stores	4533	$2,338,617	$2,443,188	-$104,571	-2.2	10
Other Miscellaneous Store Retailers	4539	$13,519,089	$9,583,797	$3,935,292	17.0	22
Nonstore Retailers	454	$17,390,322	$3,730,618	$13,659,704	64.7	4
Electronic Shopping & Mail-Order Houses	4541	$15,007,005	$0	$15,007,005	100.0	0
Vending Machine Operators	4542	$261,056	$0	$261,056	100.0	0
Direct Selling Establishments	4543	$2,122,261	$3,730,618	-$1,608,357	-27.5	4
Food Services & Drinking Places	722	$64,494,706	$141,273,509	-$76,778,803	-37.3	169
Special Food Services	7223	$1,306,839	$1,401,196	-$94,357	-3.5	6
Drinking Places - Alcoholic Beverages	7224	$1,406,851	$2,263,563	-$856,712	-23.3	7
Restaurants/Other Eating Places	7225	$61,781,016	$137,608,750	-$75,827,734	-38.0	156

Data Note: Supply (retail sales) estimates sales to consumers by establishments. Sales to businesses are excluded. Demand (retail potential) estimates the expected amount spent by consumers at retail establishments. Supply and demand estimates are in current dollars. The Leakage/Surplus Factor presents a snapshot of retail opportunity. This is a measure of the relationship between supply and demand that ranges from +100 (total leakage) to -100 (total surplus). A positive value represents 'leakage' of retail opportunity outside the trade area. A negative value represents a surplus of retail sales, a market where customers are drawn in from outside the trade area. The Retail Gap represents the difference between Retail Potential and Retail Sales. Esri uses the North American Industry Classification System (NAICS) to classify businesses by their primary type of economic activity. Retail establishments are classified into 27 industry groups in the Retail Trade sector, as well as four industry groups within the Food Services & Drinking Establishments subsector. For more information on the Retail MarketPlace data, please click the link below to view the Methodology Statement.
http://www.esri.com/library/whitepapers/pdfs/esri-data-retail-marketplace.pdf

August 10, 2020

Appendix C: Kittelson & Associates VMT Impacts Memorandum

KITTELSON & ASSOCIATES

2510 J STREET, SUITE 200
SACRAMENTO, CA 95816
P 916.266.2190 F 916.266.2195

MEMORANDUM

Date:	August 4, 2020	Project #: 23938
To:	Katie Jackson & Emily Setzer Placer County	
From:	Kittelson & Associates	
Project:	Placer County Resort Triangle Transportation Plan	
Subject:	VMT Reduction Methodology for Deed Restriction Analysis	

INTRODUCTION

In East Placer County, the demand for second homes and vacation rentals has increased housing prices and decreased housing options for local workers. As a result, workers may live further from their jobs in lower cost areas, often outside of the Tahoe Basin, and commute greater distances to reach their jobs. In response to this pressure, Placer County is considering implementing a deed restriction program that would allow financial benefits to owners who restrict housing to local workers. The goal of the program would be to increase the availability of housing for workers near their worksites.

In this memorandum, Kittelson & Associates, Inc. (Kittelson), describes the methodology used to evaluate the potential impact of the deed restriction program on vehicle miles traveled (VMT) in East Placer County, and the results of the analysis. This deed restriction program presents an additional VMT reduction strategy in support of the broader transportation goals of the Resort Triangle Transportation Plan. While the County is considering deed restriction across this County, this evaluation is specific to the East Placer County area that includes the Resort Triangle/Tahoe Basin.

Kittelson designed the analysis based on potential requirements outlined in a 2020 staff report:[1]

- *"At least one occupant must work at least 30 hours per week at an employment site located within the Truckee Tahoe Unified School District geographical boundary to ensure the program benefits workers in this region."*

[1] Draft Report: *Workforce Housing Preservation Program, Draft Program Description*. September 28, 2020.

- *"At least one occupant should work no more than 20 driving miles from the residence. A 10 percent administrative variance is available to accommodate area roads and transit options."*

ANALYSIS APPROACH

The program would impact VMT by encouraging the creation of more workforce housing in East Placer County. This would allow workers who currently live outside of East Placer County to move to housing closers to their jobs in East Placer County and reduce their commute trip VMT.

Kittelson quantify the potential impact on commute VMT by estimating (1) the distance traveled to work by workers who work in East Placer County ***but who live outside*** of the area and then (2) the distance traveled by workers who live ***and*** work in East Placer County. Taking the difference of the two numbers, Kittelson estimated the potential reduction in VMT that may be expected for each worker able to relocate through the deed restriction program.

Geographic Area

For the evaluation, East Placer County is defined using the Tahoe Unified School District boundaries. The area was selected based on the proposal to restrict eligibility to workers who "work at least 30 hours per week at an employment site located within the Truckee Unified School District."

Data Sources

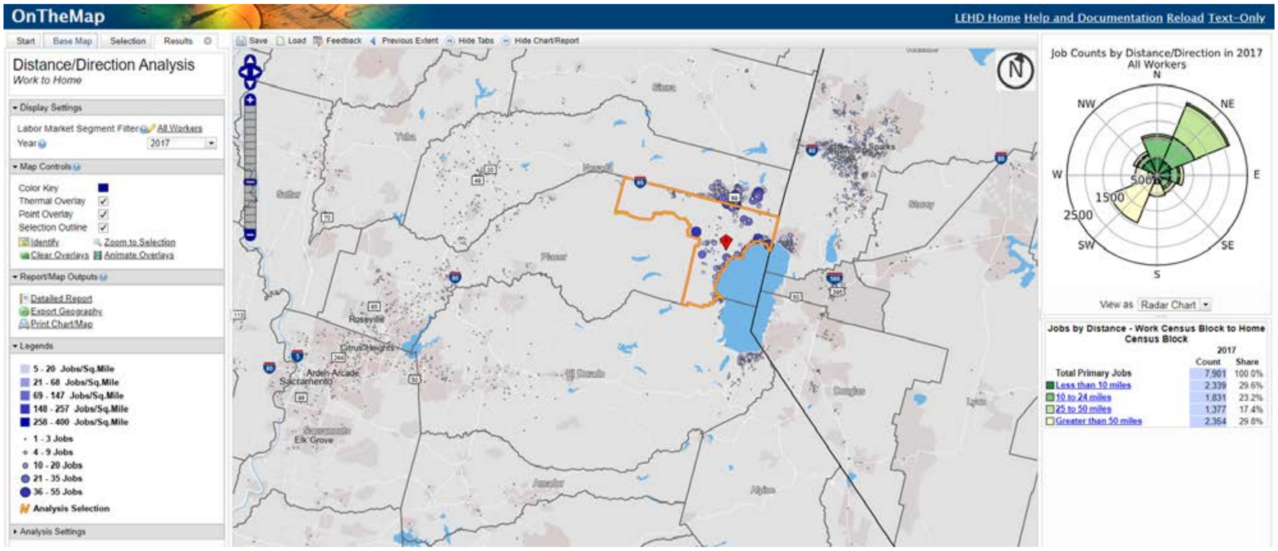
The primary data source for the analysis is the *Census Longitudinal Employer-Household Dynamic (LEHD) Survey*. The LEHD is constructed by the Census Bureau using Unemployment Insurance earning data and the Quarterly Census of Employment and Wages (QCEW) data. The dataset is a unique resource that reports aggregated home and work locations for workers. The data set is based on all jobs covered by state unemployment insurance systems. In contrast, most comparable datasets on jobs and commuting are based on sample data, or separate worker home data from employer data.

The request used for the analysis included the following parameters:

- **Analysis Type:** Analysis of where people ***live*** who work in East Placer County.
- **Year**: 2017, the most recent year available.
- **Job Type**: Primary jobs, which includes both public and private sector jobs. Data records one job per worker determined by their highest paying job.

Figure 1 shows a sample output from the LEHD interface.

Figure 1: LEHD Data Request Interface and Sample Output



Source: LEHD, OnTheMap interface, 2020.

Kittelson used trip data from StreetLight Data (StreetLight) as a secondary data source. The data set differs from the LEHD data in that it is derived based on a sample of trips. StreetLight produces origin-destination data from location records generated by cell phone applications. StreetLight reviews individual locations records to identify unique trips. Then, they aggregate the trips to create a summary data set for users, like Kittelson, to analyze.

In addition, StreetLight estimates the proportion of trips that are between home and work by reviewing where cell phones are located during daytime and nighttime hours. Kittelson used this component of the StreetLight data set to refine estimates of commute distance in the Resort Triangle Area. The StreetLight analysis complemented the LEHD data, which provides a comprehensive picture of home locations but is less refined for producing a granular understanding of average trips distance in small geographies.

Analysis and Results

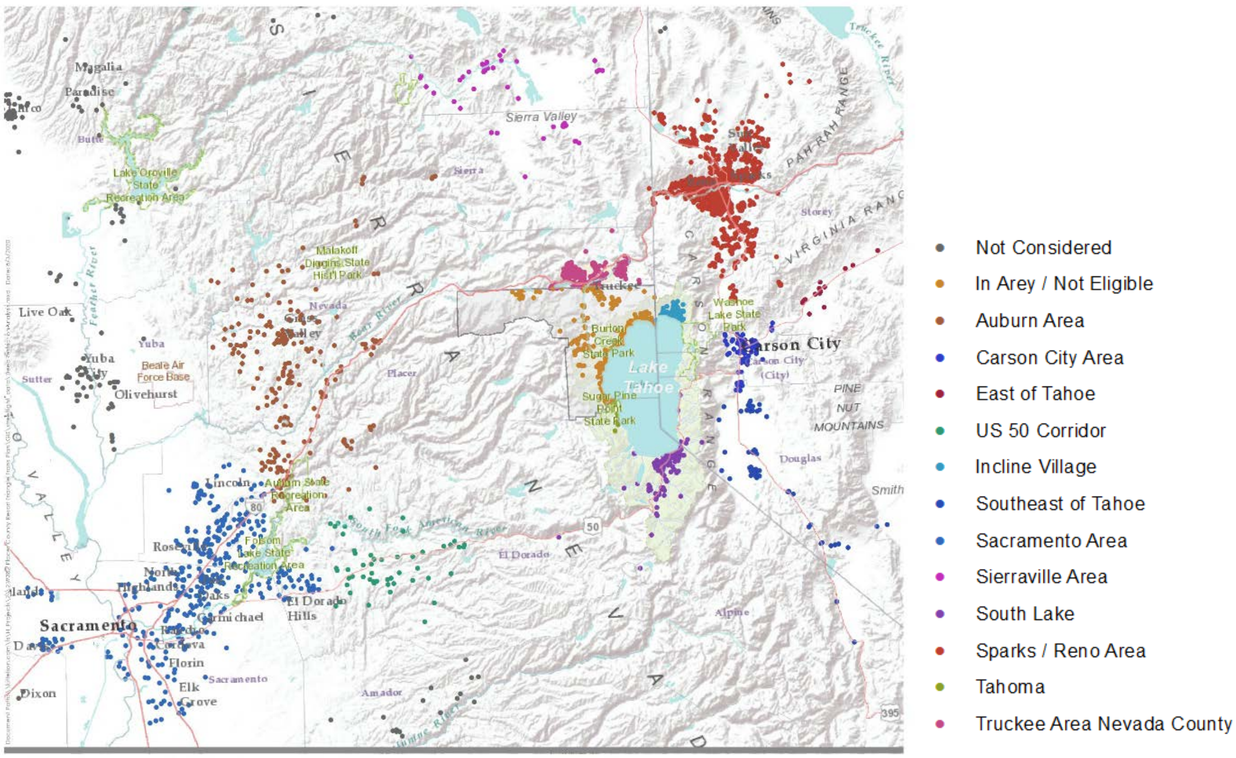
Step 1: Group Home Location for Workers

Kittelson first aggregate the worker home location data into geographic areas to understand the number of workers residing in different areas. Kittelson selected the areas for aggregation based on jurisdictional boundaries and likely travel routes. During this step, Kittelson cleaned the data to remove records for workers with home addresses located outside of the likely commute shed.

This step removes LEHD records for workers who primarily work remotely as well as workers who temporarily locate to Tahoe for seasonal work. In each case, the home location provided for unemployment purposes will not correspond to a commute trip. Remote workers will not be traveling, and seasonal workers may commute from a part-time residence in the Tahoe area, while continuing to use their permanent address for unemployment insurance paperwork.

Figure 2 shows how the data was grouped and summarizes the number of workers by group. In the map, points represent locations where workers live and each point may represent multiple workers.

Figure 2: LEHD Worker Home Location



Source: Kittelson & Associates, Inc. with Census LEHD data

Step 2: Estimate Average Commute Distance

Kittelson then estimated the average commute distance for workers who live outside of East Placer County. First, Kittelson identified a central point for each geography based on the relative location of worker homes and measured the roadway distance to East Placer County. Then, Kittelson use StreetLight data to estimate the average distance traveled by workers inside of East Placer County to reach their job. StreetLight travel data was used for measuring average trip distance inside of East Placer County because it provides greater detail for estimating distances in small geographic areas where efficiency of routing can have a greater impact on trip length. The estimated distances are shown in Table 1.

Table 1: Estimated Travel Distance by Area

Area	Workers Living in Area		Distance (mi)
	Number	Percent	
Auburn Area	261	6%	79
Carson City Area	104	1%	38
East of Tahoe	50	1%	50
US 50 Corridor	53	1%	102
Incline Village	326	4%	11
Sacramento Area	435	5%	104
Southeast of Tahoe	66	1%	51
South Lake	197	2%	34
Sierraville Area	55	1%	39
Sparks / Reno Area	1,526	20%	45
Tahoma	86	1%	12
Truckee Area, Nevada County	1,500	24%	12
Weighted Average			**38.8**

Source: Created by Kittelson & Associates, Inc. LEHD data used for number of workers in designated areas. Distance calculated from LEHD data, Google Maps routing information, StreetLight data for local travel in and around Basin.

Kittelson then calculated a weighted average of travel distance across workers outside of East Placer County based on the number of workers in each group. The average is **38.8 miles per direction of the commute.** This corresponds to:

- **79.6 miles per workday**; and
- **56.9 miles per day** assuming five days of commuting a week.

Step 3: Commute Distance for Local Workers

Kittelson used data from StreetLight to measure the average travel distance for workers who live and work in the East Placer County area. Similar to above, StreetLight data was selected for this part of the analysis to better capture average travel distance where specific routing has greater impact on travel distances. The number reflects a weighted average of the distance between different zones in the Resort Triangle, weighted by the volume of home-based-work trips for the specific zone pair. The average trip length between home and work is 4.8 miles per. This corresponds to:

- **9.6 miles per workday**; and
- **6.9 miles per day** assuming five days of commuting a week.

Step 4: Estimating Potential Impact

The program can reduce VMT for workers by facilitating movement of workers to housing in East Placer County. In this methodology, Kittelson estimated the potential VMT reduction by taking the weighted average commute distance for workers coming from outside the area and subtracting the estimated internal commute distance. This equates to a reduction in commute VMT of:

- **70 miles per workday** for each worker who moves as a result of the program.
- **50 miles per day** assuming five days of commuting a week.

This is equivalent to an **88% reduction in commute trip VMT** on average if workers relocate from outside East Placer County and travel the typical Resort Triangle commute distance from the deed restricted property.

Kittelson also compared the estimate for current commute lengths with the maximum allowable commute distance under the program, 22 miles, to generate a second, more conservative estimate. Twenty-two miles is based on the requirement that workers live "no more than 20 driving miles from the residence" with a 10 percent allowed variance. Comparing the estimated current travel distance for those living outside of East Placer County with the maximum allowable distance, Kittelson finds that the program would generate a reduction in commute VMT of:

- **36 miles per workday** for each worker who moves as a result of the program.
- **25 miles per day** assuming five days of commuting a week.

This is equivalent to a **45% reduction in commute trip VMT** on average if workers relocated from outside East Placer County and travel the maximum distance allowed from the deed restricted property.

Estimate Considerations and Assumption

Considerations

- *The potential change reported above is for commute VMT only.* The methodology does not consider whether the VMT generated by a deed restricted property will be lower or higher than a similar property used as a second home or short-term rental.

- *Estimated reduction per worker may be lower than the reduction generated per unit*. If a deed restricted property results in multiple workers moving into East Placer County, the impact could be larger depending on prior commuting/carpooling patterns.

Assumptions

1. *Housing made available by the program will be equally attractive to workers living outside of East Placer County.* If it is more effective in attracting people who would otherwise live further away it will result in more VMT reduction. Conversely, it will lean to less reduction if those most attracted live closer. Additionally, all workers outside East Placer County are assumed to drive to work.

2. *If deed restricted housing is filled by workers who already lived in East Placer County, the resulting vacancy will remain used as a residential property.* If vacated housing is converted to short-term/vacation rental, the impact of the program would be reduced.

3. *Workers who move into East Placer County will not alter their travel mode.* Workers who move closer may be more likely to use alternatives to private vehicle travel increasing the reduction in VMT.