Seeking Housing Affordability in the Denver Metro Area:
Detailing the causes and outcomes of the housing crisis to inform local and national solutions

CU Denver MURP Research Forum
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Carrie Makarewicz, PhD

Current Research Team: Ebru Altintas, Brenn Anderson-Gregson, Ethan Greene, Francesca Rossi
Prior Research Members: Rey Hernandez Sosa, Laura Santos Granja, Dani Slabaugh, Wes Wright
Outline

Study Approach: Purpose, approach, and study goals

The Denver Metro case

Communicating our findings

Next steps: using information to stimulate actions
The need for a *regional* study
• ~400,000 households (30%) are extremely/housing cost burdened
• Housing Price Increases were among the top 5 in the nation
• Colorado has 250,000+ job vacancies (employers assume housing is one reason)
Partners & Funder

Denver Region Council of Governments (DRCOG)

Metro Denver Homelessness Initiative (MDHI – the HUD Continuum of Care)

ArLand Development (private economic development and affordable housing consultant)

Advisory Group for feedback & direction
Partners’ interests

The work you have already done on the topic of Affordable Housing has provided an important impetus for DRCOG to continue to work with key strategic partners…on better understanding what the needs, challenges and opportunities are on that topic in the metro region. This proposal would certainly add critical information… [and] a deeper understanding of the complexities, challenges and opportunities for the metro region in providing affordable housing.

The aim of creating a deeper understanding of the housing needs of our community is critical to addressing homelessness and housing instability throughout the region. The number one reason people experience homelessness in the metro-Denver region is a lack of attainable housing.
Research questions

• **DATA ANALYSIS RQ1:** Is it possible to identify local and sub-regional patterns in housing developer responses to various local, economic, regulatory, and demographic conditions through a longitudinal and in-depth analysis of the number, type, price, and fine-grained location of housing units throughout the region over a 15-year period (2005-2020)?

• **INTERPRETATION RQ2:** Will the detailed results from RQ1 allow for meaningful and targeted focus groups and interviews with developers, financiers, and planners that result in a comprehensive and nuanced understanding of why the market developed certain types of housing in specific locations at certain times?

• **RESPONSE FROM DECISION MAKERS RQ3:** In what ways might detailed local housing gap data for all jurisdictions in the region affect collective decision making on policies or principles regarding affordable housing by the 58 members of DRCOG’s Board of Directors?

• **PUBLIC MESSAGING RQ4:** What experiences, characteristics, or other circumstances explain housing precarity for households experiencing homelessness, or at risk of becoming homeless? How might these individual experiences be explained to the general public in relation to the study’s findings in order to gain community support for more affordable housing?
Study Strategy

**Goal:** Spur concrete action and commitment to address the region’s significant affordable housing needs (i.e., “crisis”)

- Identify multiple and cumulative causes for the affordable housing shortage at fine geographies through plans, zoning codes, permits, and parcel data.
- Ground quantitative findings and solutions through interviews with planners, financiers, developers, elected officials, nonprofits, renters, and others.
- Illustrate the impacts on individuals, households, employers, communities, and environment.
- Craft short- and long-term solutions at multiple scales across sectors, and build a coalition to achieve regionwide commitment.
The failures of typical “RHNAs”
Regional Housing Needs Allocations/Assessments

- RHNAs are long reports that discuss housing demand versus housing supply, not necessarily causes for housing shortages
- People may gloss over, distrust, or dismiss the numbers
- Others assume: if we don’t zone for it, they won’t build it, and people won’t move to our communities
- In most states, RHNA’s lack “teeth”
  - Even in states with “Regional Housing Needs Allocation” systems, like CA, communities don’t comply with the number of units allocated to their community and the compliance system is broken.
- Researchers have called them: “neoliberal alchemy” (Palm & Whitzman, 2020) and Superficial plans without action (Ramsey-Musolf, 2017)
RHNA’s in a weak planning state?

Colorado, and 9 other states, allow, but do not require cities to plan.

If CO cities choose to plan, the state only requires a Recreation & Tourism element.

CO is also a strong home-rule state.

This would make a mandatory regional housing allocation to each jurisdiction nearly impossible to suggest, let alone enforce…unless some of the new legislation is passed.

Municipalities and counties are **authorized [not required]** to prepare comprehensive plans as a long-range **guiding** document for a community to achieve its vision and goals. The comprehensive plan (or master plan) provides the policy framework for regulatory tools like zoning, subdivision regulations, annexations, and other policies. A comprehensive plan promotes the community's vision, goals, objectives, and policies; establishes a process for orderly growth and development; addresses both current and long-term needs*; and provides for a balance between the natural and built environment. (See C.R.S. 30-28-106 and 31-23-206.) Elements addressed in a comprehensive plan may include: **recreation and tourism** (required by state statutes), **transportation**, land use, economic development, affordable housing, environment, parks and open space, natural and cultural resources, hazards, capital improvements*, water supply and conservation, efficiency in government, sustainability, energy, and urban design.
A RHNA in Denver Metro?

DRCOG’s ability to work on housing issues

• Prohibited from working on housing from 1985 until 2014
  • (DRCOG is an MPO, i.e., a transportation planning agency it should not govern or study land use and housing, unless it relates to transport)

• 2014: DRCOG’s 2nd attempt to win the HUD Sustainable Communities Initiative grant required plans to coordinate housing, transportation, and the environment

• April 2022: DRCOG weekend board retreat approved DRCOG to add housing to their work program (funding is uncertain)

• Special projects staff at DRCOG slowly working on affordable housing through guest speakers, work sessions, T.A., endorsement of academic research
Our Advisory Group Members

Convenings:
1. Summer (5 meetings due to vacations)
2. Planning May 2023 in-person, with additional groups

June 30th
1. Denver Housing Authority
2. Adams County Housing Authority, “Maiker Housing”
3. Denver Streets Partnership
4. DRCOG
5. RTD
6. City of Denver Mayor’s Office
7. Metro Mayors Caucus
8. ULI
9. Co Housing Finance Authority
10. Housing Colorado
11. Cappelli Consulting & NDC
12. City of Aurora Community Development

August 11
10-11:30a
14. ArLand Consulting
15. Heidi Grove, Boulder HHS
16. Foothills Housing Authority

1-3:30p
18. DRCOG
19. Habitat for Humanity
20. ULI
21. Salvation Army
22. Radian
23. Archway Housing Authority
26. Brighton Housing Authority
27. Co Coalition for the Homeless

August 16th
28. Enterprise Community Partners

August 17th
29. Metro Denver EDC & Chamber of Commerce
30. Co Futures Center, CSU
31. UNE Colorado
Preliminary findings

The Past and Present Housing Situation

Production, mis-match, need, and the case through jobs
Data Inputs

**Housing : Households**
- Number of units
- Rent or own
- Price
- Size
- Age

Households/Individuals
- Income
- Number of persons
  - Children
  - Adults
- Unhoused

Locations: zoning, tract, municipality, county, mobility

**Parcels : Uses : Regulations**
- Land & improvement values
- Uses
- Density
- Zoning
- Sales activity
- Year built
- Etc.

**Jobs : Workers : Incomes**
- Workers’ O&D
  - home block
  - work block
- Worker income
  - <$15K
  - $15K-$39K
  - $40K +

Number of workers with similar Home/Work pattern

Workers by income summed to each city

**Transport : Users**
By incomes and O&D:
- Modes to work
- Trip distances
- Commute length

Bus & Light Rail stops near job types
Big Picture: A Perfect Storm since 2010

Development Restrictions + Market Contraction + Pop. & Job Growth = high costs, long commutes

DRAFT Region’s Zoning is mostly SF Residential

Housing Unit Production declined (2010 – 2019)

Increased Income polarization with Population Growth

Longer Worker Commutes
Housing Data

Mismatched by size & price...and not enough
Annual Housing Production declined in most cities
(from 1000-2000/year to 0 to 1000)

Based on historical normalized census tract data* on housing units from 1990-2019

Housing Units 1980-2019

• Significant declines in certain counties and cities – growth controls, low density zoning, and other limits

• New growth in Denver and outer counties hasn’t been enough

Boulder Area % Change in Housing Units 1980 - 2019

- Mead
- Firestone
- Erie
- Frederick
- Lafayette
- Boulder

2010 Regional Rental Shortage by Income

Rental Unit Shortage and % Housing Burdened, 2010 - Region

- Deficit
- Unit Surplus
- Unit Deficit

Income Group: <$5,000, $5,000 - $10,000, $10,000 - $15,000, $15,000 - $20,000, $20,000 - $25,000, $25,000 - $35,000, $35,000 - $50,000, $50,000 - $75,000, $75,000 - $100,000, $100,000 - $150,000, $150,000+
All counties follow this regional trend from 2010 to 2020

- Unit deficit at most income levels: except ~$50,000-$75,000
- % Housing Burdened concentrated around lower income levels: increased from 12% in 2010 to 36% in 2020
- Significant number of renters “renting down” and “renting up”
In addition to income mismatch: household/home size mismatch

Unmet Need for Smaller Households (0-2 bedrooms)

- Adams
- Arapahoe
- Boulder
- Denver
- Douglas
- Jefferson
- Weld

Unmet Need for Smaller Households

- 1 & 2 Person Households
- 0, 1, & 2 Bedroom Homes

Excess Supply of Large Homes (3-5+ bedrooms)

- Adams
- Arapahoe
- Boulder
- Denver
- Douglas
- Jefferson
- Weld

Excess Supply of Large Homes

- 3-7 Person Households
- 3-5 Bedroom Homes

The picture is different for family households with low incomes: future analysis with protected Census data
Early PUMS Analysis

In Jefferson County:
54% of older adult households (70 y.o.+ with 1 or 2 persons live in 3, 4, and 5 BR homes.
Are larger homes a relic?

Or have developers started to build smaller homes?

No.

Distribution of 1, 2, 3, 4, and 5+ bedroom homes: 3, 4, and 5 bedroom homes are still dominant


Source: Lightbox RE parcel level data, 2021, Year built field
Homes have also increased in size

Source: Lightbox RE parcel level data, 2021, Year built field
With larger homes, come higher prices

Source: Lightbox RE parcel level data, 2021, Year built and Assessed Values fields
Why the mismatch?

1) Developers targeting same small markets: 1) high-income households with kids | high-income singles

2) Zoning does not reflect demographics and need for the “middle” housing type
   - Only 2.2% of housing permits from 2005-2020 were for the “middle” type (2-9 units)
   - 2-9 unit housing structures are just 4.6% of existing housing in the region

Figure 1. The Spectrum of Housing
Jobs

Do jobs pay enough for housing? Can workers live near work?
Regional workers requiring affordable housing

- 30% of *private* sector jobs (402,785) pay less than $43,000 a year (50% AMI) (Census, QCEW)
- 45% of *all* (private and public) jobs pay less than $40,000 a year (Census, LODES)

**DISTRIBUTION OF JOBS BY LODES INCOME CATEGORIES**

- % of Jobs paying <$43,000 (50% AMI) by County:
  - Adams: 39%
  - Arapahoe: 29%
  - Boulder: 30%
  - Broomfield: 23%
  - Denver: 25%
  - Douglas: 32%
  - Jefferson: 37%
  - Weld: 34%
  - 8-County: 30%

- Distribution:
  - <$15,000: 18%
  - $15k-$39k: 27%
  - $40K+: 55%
Economic Development vs. Affordable Housing

Region’s fast growing Financial Services Cluster:

Median wage for 41% of the most prevalent jobs pay <70% AMI

Depending on household size, at least 68,000 financial services workers require affordable housing

Source: Metro Denver EDC, Financial Services Industry Cluster Study (9-county) https://www.metrodenver.org/regional-data/industry-cluster-studies
Employment Centers and Nodes

Access to housing and transportation

Source: Authors analysis using Census LODES
60% of Jobs in 58 “primary centers”
20% of Jobs in “secondary centers”
20% of Jobs are outside of centers, e.g. “uncentered”

Source: Authors analysis using Census LODES
Significant* differences in shares of workers by income across the 3 types of centers

Lower wage jobs are in secondary and uncentered locations

Source: Authors analysis using Census LODES
Bus and rail near centers

Primary job centers are closest to light rail

Workers in non-centered jobs (mostly lower wage) have lower access to transit
Future data analysis by city and county:
- Live and work
- Live, don’t work
- Work, don’t live

By income, and compared to zoning and planning for affordable housing

Live-Work Flows for People Working in Douglas County

Source: Authors analysis using Census LODES
Origin-Destination Pairs for Commutes Originating and/or Terminating in Jefferson County

Works and Lives in Jefferson County

Lives in Jefferson County but works outside of it

Works in Jefferson County but lives outside of it

* Each line represents at least two workers traveling from the same origin block to the same destination block.

Source: Authors analysis using Census LODES
Preliminary Findings
Part II

The Why: Plans, Zoning, other Regulations & Housing Investments
Evaluation of municipal planning contexts for affordable housing?

41 largest cities: scoring Comprehensive Plans, Housing Plans, Zoning Code, and HOME/CDBG Applications and Performance Reports, etc. in 16 categories and 60 “Yes/No” questions regarding plans and actions for AH. Additional 10 questions require zoning calculations in GIS.

### Affordable Housing Goals
1. Is affordable housing a well-defined goal with a housing shortfall analysis?
2. Are affordable housing goals cohesive with overall plan?
3. Do affordable housing goals include unhoused individuals?
4. Do affordable housing goals include people with physical disabilities and older adults?

### Actions that Enable Affordable & Attainable Housing
5. **Applied** for available HUD funding at a reasonable scale?
6. HUD application include accessibility retrofits and AH for older adults.
7. Zoning code allows for affordable and compact development, e.g., mixed use, medium-high density.
8. Multi-family units of all scales are allowed by right.
9. Supportive and transitional housing is allowed by right.
10. Inclusionary zoning requires a percentage of permanently affordable units in all developments.
11. ADUs or backyard rental homes are allowed throughout existing low and medium density neighborhoods, and programmed as affordable units?
12. Coordinates with city or county housing authority.

### Affordable Housing Outcomes
13. Number of subsidized units.
15. Share of housing units in moderate- and high-density housing.
16. Housing Choice Voucher holders/units.
Initial scoring results: just the plans, not zoning

Low scoring cities:
- **Wealthy “villages”**: fine with their score
- **Developing rural towns**: prefer development over affordability
- Fast growing newly incorporated suburbs with tech jobs: starting to realize they need affordability
- Inner-ring suburbs, high poverty, low municipal capacity to plan “don’t need/want more affordable housing”

Higher scoring cities
- Inner ring suburbs recognizing growth and diversity from new immigrants, refugees, people displaced from Denver

<table>
<thead>
<tr>
<th>City</th>
<th>Share of Workers earning &lt;$39K</th>
<th>Plan Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bow Mar</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>Cherry Hills Village</td>
<td>40%</td>
<td>0%</td>
</tr>
<tr>
<td>Foxfield</td>
<td>72%</td>
<td>1%</td>
</tr>
<tr>
<td>Columbine Valley</td>
<td>56%</td>
<td>16%</td>
</tr>
<tr>
<td>Deer Trail</td>
<td>74%</td>
<td>25%</td>
</tr>
<tr>
<td>Firestone</td>
<td>60%</td>
<td>29%</td>
</tr>
<tr>
<td>Greenwood Village</td>
<td>32%</td>
<td>29%</td>
</tr>
<tr>
<td>Bennett</td>
<td>66%</td>
<td>37%</td>
</tr>
<tr>
<td>Lochbuie</td>
<td>53%</td>
<td>38%</td>
</tr>
<tr>
<td>Northglenn</td>
<td>58%</td>
<td>40%</td>
</tr>
<tr>
<td>Mead</td>
<td>34%</td>
<td>41%</td>
</tr>
<tr>
<td>Centennial</td>
<td>38%</td>
<td>43%</td>
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<tr>
<td>Frederick</td>
<td>39%</td>
<td>49%</td>
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<tr>
<td>Federal Heights</td>
<td>73%</td>
<td>50%</td>
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<tr>
<td>Brighton</td>
<td>50%</td>
<td>60%</td>
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<tr>
<td>Littleton</td>
<td>45%</td>
<td>66%</td>
</tr>
<tr>
<td>Commerce City</td>
<td>40%</td>
<td>72%</td>
</tr>
<tr>
<td>Sheridan</td>
<td>50%</td>
<td>72%</td>
</tr>
<tr>
<td>Westminster</td>
<td>54%</td>
<td>75%</td>
</tr>
<tr>
<td>Thornton</td>
<td>64%</td>
<td>81%</td>
</tr>
<tr>
<td>Aurora</td>
<td>51%</td>
<td>90%</td>
</tr>
</tbody>
</table>
Where Do Municipally Mandated Density Requirements and Zoning Prevent More Affordable Housing?

A significant percent of housing cost comes from minimum lot size.

NOTE: Map is made from an initial collapse of 1000 zoning categories regionwide.

Legend
- Only allows single family detached
- Allows medium density residential (townhomes, duplexes, or similar housing styles)
- All high-density, multi-family, or mixed-use residential
- Non-residential land use, DRCOG municipalities

Source: DRCOG consolidated zoning, 2021, recoded by authors
Zoning Code Calculations

Commerce City’s Original Code with PUDs

Commerce City with our Regional Collapsed Code
Communicating the Findings

- Nov. 8th: City & County Managers on at DRCOG quarterly meeting
- Dec. 1st: Jefferson Co. Commissioners, City Managers, and Mayors
- Dec. 14th: Jefferson Co. Housing Plan Task Force
- March 8th: Jefferson Co. Plan Commission work session
- ...more to come
Final Scores for Incorporated Jefferson Co.

<table>
<thead>
<tr>
<th>City</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td>Arvada</td>
<td>33</td>
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<tr>
<td>Bow Mar</td>
<td>0</td>
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<tr>
<td>Edgewater</td>
<td>32</td>
</tr>
<tr>
<td>Golden</td>
<td>31</td>
</tr>
<tr>
<td>Lakewood</td>
<td>46</td>
</tr>
<tr>
<td>Littleton</td>
<td>38</td>
</tr>
<tr>
<td>Westminster</td>
<td>43</td>
</tr>
<tr>
<td>Wheatridge</td>
<td>31</td>
</tr>
</tbody>
</table>

Reasons for low scores

- Limited multi-family areas
  - Some only as conditional uses, i.e., public hearing
- No housing plan
- No economic development plan, and/or doesn’t address workforce housing issues
- No by-right institutional housing, group homes and group living (transitional/supportive housing, nursing facilities, re-entry, homeless shelters, SROs, housing first)
- Little use of CDBG for affordable housing and homeless shelters
## Arvada’s Zoning:

Some mixed use, but it’s conditional

Table 3-1-2-2: Residential Land Use by Zoning District

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Open Space and Residential</th>
<th>Mixed-Use</th>
<th>Olde Town</th>
<th>Commercial and Industrial</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OS</td>
<td>RA</td>
<td>RN</td>
<td>R6</td>
<td>R13</td>
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<tr>
<td>Single-Family Detached</td>
<td>A</td>
<td>A</td>
<td>A</td>
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<td>A</td>
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<tr>
<td>Duplex</td>
<td>L^1</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>Townhome</td>
<td>L</td>
<td>L</td>
<td>L</td>
<td></td>
<td>L</td>
</tr>
<tr>
<td>Multiplex</td>
<td>A</td>
<td>A</td>
<td>A</td>
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<td>A</td>
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<tr>
<td>Multifamily</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
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<tr>
<td>Cottages, Micro-Homes, or Co-Housing</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

**TABLE NOTES:**

1. Duplex units are only allowed in the RN-D subdistrict.
# Scores vs. Need

## Summary Plan Scoring Results

<table>
<thead>
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<tr>
<td>41-50</td>
<td>5</td>
<td>170,374</td>
<td>46%</td>
<td>47%</td>
<td>14%</td>
<td>12.7%</td>
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<tr>
<td>31-38</td>
<td>11</td>
<td>25,362</td>
<td>53%</td>
<td>60%</td>
<td>11%</td>
<td>8.7%</td>
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<tr>
<td>20-29</td>
<td>12</td>
<td>7,763</td>
<td>55%</td>
<td>75%</td>
<td>11%</td>
<td>6.5%</td>
</tr>
<tr>
<td>0-19</td>
<td>13</td>
<td>15,901</td>
<td>50%</td>
<td>71%</td>
<td>9%</td>
<td>5.3%</td>
</tr>
</tbody>
</table>
Next Steps: Getting to our Goal

Spur concrete action and commitment to address the region’s significant affordable housing needs (i.e., “crisis”)
Feedback from summer advisory group

• Focus on impacts from housing instability and unaffordability: tell the stories of impacts on schools, families, employers, etc.
• Focus on how to improve plan score, not why their score is bad
Early Solutions Analysis

Missing Middle Housing Feasibility

Pilot data

https://www.mywdrc.org/adu-pilot-program
Test case: analysis in a Denver neighborhood

Future scenario analysis based actual zoning and potential to change zoning regionwide
Next Steps

Finish the zoning map and database: We joined the National Zoning Atlas effort as the Colorado Team

Complete interactive website with zoning and plan scoring

Next Advisory Group meeting: in person and with more members, ~May 2023 with 30+ organizations

Begin Interviews

Depict consequences: tell the stories

Work toward solutions