Discussion of Cracking Down, Pricing Up: Housing Supply in the Wake of Mass Deportation

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Summary of the Paper

This paper studies the effect of labor supply shortage on housing construction

- Exploit a natural experiment "Secure Communities"
  - US Immigration and Customs Enforcement program from 2008 to 2013
  - Deports undocumented illegal individuals
- Interpret this program as a negative shock to labor supply in production of new housing
  - DiD estimates show that declines in new housing and price increases
  - Key identification assumption
    - Removal of illegal residents hit the labor market of the construction sector negatively
    - Staggered roll-out of the program through 3000+ counties is exogenous to housing market condition otherwise

Overall Comment

- Great to have more papers working on new housing supply
    - Esp. not on regulations
- New housing supply is highly unequal
    - Wang, *Supply Inequality in Segmented Housing Markets*
    - Baumsnow and Duranton, *Housing Supply and Housing Affordability*
- Policies that target middle-income segments are rare, and have limited impacts
    - Krimmel and Wang, *Upzoning with Strings Attached: Evidence from Seattle's Housing Affordability Mandate*
    - Been, Ellen, and O'Regan, *Supply Skepticism: Housing Supply and Affordability*
- We know relatively less about market forces on housing supply
- Most focus is on regulations
- Developers' cost function, construction sector's market structure..

Comment 1: Direct Causality through Construction Workers

- DiD event study established: onslaught of SC $\Rightarrow$ post treated counties experienced
  - Non-citizen workers, LEFB workers, Hispanic workers, US-born workers in construction industry
  - Permits and new constructions completed declined
  - Price increased
- How many people are deported?
  - In particular, what is the percent of labor loss of the construction industry *locally*?
- How big of a negative shock this is to affect output (construction)?

Comment 2: Chain of Causality/Mechanism

- Immigration enforcement $\Rightarrow$ loss of labor force in construction sector $\Rightarrow$ unable to substitute with other forms of inputs $\Rightarrow$ developers choosing to scale back production
- Immigration enforcement $\Rightarrow$ loss of labor force in all low-paying sectors of the economy, such as janitors, uber drivers, etc. $\Rightarrow$ complementarity in production between low-skilled immigrants and higher-skilled citizens lead to a reduction in local employment rate of citizens $\Rightarrow$ unable to substitute with other forms of inputs $\Rightarrow$ developers choosing to scale back production

Comment 2: Incidence

With 3000+ counties with different pre-existing conditions, DiD masks useful variation

- How big is the incidence of the program on the labor force in construction industry?
  - versus janitors, uber drivers
- How big is the variation of incidence across counties?
  - Depending on # workers needed & how popular one particular task could be locally
  - If lose 2 out of 20 workers working on installing granite counter tops in kitchen — could cope
  - OR if lose 2 workers working on installing A/C out of 20 — maybe could cope in Boston
  - OR if I lose 15 workers working on installing A/C out of 20 — in Austin, definitely slows down finishing up projects

Suggestions on Comments 1 and 2

How do firms adjust to negative labor supply shocks? What's the elasticity of labor cost on output?

- A toy model could be immensely useful to back out magnitudes of pass-through:
  - $\downarrow$ labor on $\uparrow$ cost, and then on $\downarrow$ output

- Which margin does it affect *the most*
  - Replace workers, substitute to become more capital intensive
    - Consistent with the findings that low-skilled workers decline, not high-skilled + wages of workers increased (mechanically)
  - Scale down and reduce output (i.e. manufacturing output, housing)
  - Less productive and pay lower wages
  - Exit or consolidation of surviving firms

Suggestions on Comments 1 and 2 (cont'd)

Market structure of construction industries

- Regional vs. local construction firms
- Regional firms might be more able to borrow workforce from close-by counties

How segmented firms are and how specialized the contractors are

- Construction industry is highly segmented
- Flooring, A/C installation, roofing, granite counter-tops
- Where do we see as segments with illegal immigrants?

Comment 3: Heterogeneity

- A simple model with production function with high- and low-skilled labor
- Production-side could also differ on capital-intensive versus labor-intensive types of jobs
  - Renovations, installation of A/C units
- Counties differ in percent of LEFB workers in low-skilled labor pre-SC
  - Counties with more illegal immigrants before 2008 are hit more
  - Counties located in hot regions with most illegal immigrants dominate A/C installation before 2008 are hit more

Comment 4: Relevant Margins

- Which margins of the construction sector are most severely affected?
  - High pre-existing share of illegal immigrants + quintessential part of delivering product
  - e.g. all A/C installations are done by illegal immigrants in Austin + impossible to deliver a home without A/C in Austin
    $\Rightarrow$ negative supply
- Permits decline – why would permitting be affected in your story?
  - # new construction permits - # housing starts
  - # housing starts -# housing completes
  - Permits for remodeling that uses more illegal workers
  - Permits from contractors that are localized versus those that span different regions

Remodeling permits example, Seattle

Permit Number
6823248-FR

CITY OF SEATTLE
Furnace Permit

Seattle Department of
Construction and Inspections
700 Fifth Ave, Suite 2000
P.O. Box 34019
Seattle, WA 98124-4019
(206) 684-8600

DIST 08

APN #:
DV0012084

Site Address: 2640 WALNUT AVE SW SEATTLE, WA 98116
Building ID:
Location:
Legal Description: APN:501950-0205: LTS 17 & 18, & WLY 10' OF LT 29, BLK 2, MADRONA ADDITION
Records Filed At: 2640 WALNUT AVE SW

OWNER	CONTRACTOR	
Rachel Dibiase 2640 Walnut Ave SW Seattle, wa 98116 Ph: (925) 788-9455	Greenwood Heating & AC 825 S Stacy ST Seattle, WA 98134 Ph: (206) 784-1818 General Contractor Lic: GREENHA922U7	**Application Date:** 02/11/2021 **Issue Date:** 02/11/2021 **Expiration Date:** 08/11/2022
	Primary Applicant/Installer	**Fees Paid:** $118.55 **As of Print Date:** 2/11/2021

Description of Work: installing a air handler

Permit Remarks:

PERMIT SUBMITTED ONLINE

NOTE: HEAT PUMPS, SPLIT SYSTEMS, AND A/C REQUIRE A SEPARATE REFRIGERATION PERMIT

Vent Installation: N **Fuel Conversion:** N

Residential Furnace/Appliance Information:

Seattle Department of
Construction and Inspections
700 Fifth Ave, Suite 2000
PO Box 34019
Seattle, WA 98124-4019
(206) 684-8600

CITY OF SEATTLE
Electrical Permit
Standard Electrical Permit

6890696-EL
Permit Number

DIST # 08

Site Address: 2640 WALNUT AVE SW SEATTLE, WA 98116
Location:

OWNER	CONTRACTOR	
Graham Tash 2640 Walnut Ave SW Seattle, Wa 98116 Ph: (253) 381-3590	As You Wish Electric Brenda 825 S Stacy ST Seattle, WA 98134 Ph: (206) 783-2525 Electrical Contractor Lic: ASYOUYW925NM	**Application Date:** **Issue Date:** 03/28/2022 **Expiration Date:** 03/28/2023 **Fees Paid:** $358.34 **As of Print Date:** 03/28/2022

Description of Work: (10) 20 amp 120 volt circuits
(24) outlets
(27) fixtures

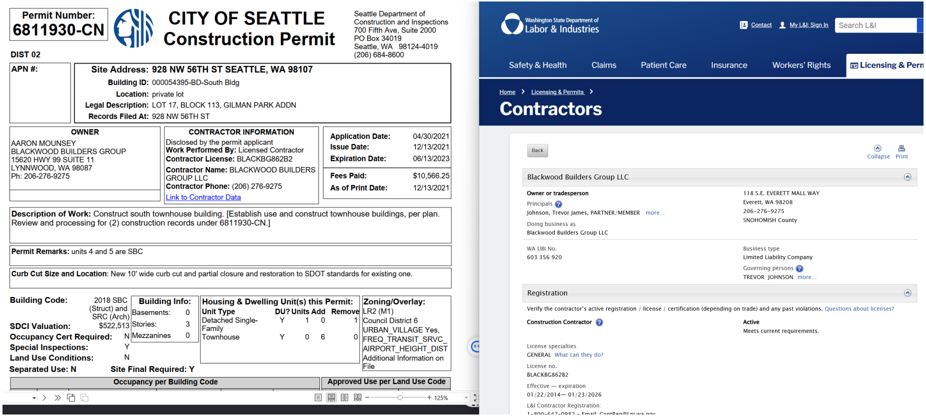
Electrical Details
Work Type: Remodel or Repair

Devices and Branch Circuits
Dedicated Appliance Circuits (15-25 Amps): 10

Connections	
Connection Type	**Connection Quantity**
Receptacles	24
Light Fixtures (Luminaires)	27
Switches	13

Figure: Two remodeling permits on the same property

Construction permit example, Seattle



Permit Number: 6811930-CN

CITY OF SEATTLE
Construction Permit

Seattle Department of Construction and Inspections
700 Fifth Ave, Suite 2000
PO Box 34019
Seattle, WA 98124-4019
(206) 684-8600

DIST 02

APN #:

Site Address: 928 NW 56TH ST SEATTLE, WA 98107
Building ID: 000054395-BD-South Bldg
Location: private lot
Legal Description: LOT 17, BLOCK 113, GILMAN PARK ADDN
Records Filed At: 928 NW 56TH ST

OWNER
AARON MOUNSEY
BLACKWOOD BUILDERS GROUP
15620 HWY 99 SUITE 11
LYNNWOOD, WA 98087
Ph: 206-276-9275

CONTRACTOR INFORMATION
Disclosed by the permit applicant
Work Performed By: Licensed Contractor
Contractor License: BLACKBG862B2
Contractor Name: BLACKWOOD BUILDERS GROUP LLC
Contractor Phone: (206) 276-9275
Link to Contractor Data

Application Date:	04/30/2021
Issue Date:	12/13/2021
Expiration Date:	06/13/2023
Fees Paid:	$10,566.25
As of Print Date:	12/13/2021

Description of Work: Construct south townhouse building. [Establish use and construct townhouse buildings, per plan. Review and processing for (2) construction records under 6811930-CN.]

Permit Remarks: units 4 and 5 are SBC

Curb Cut Size and Location: New 10' wide curb cut and partial closure and restoration to SDOT standards for existing one.

Building Code: 2018 SBC (Struct) and SRC (Arch)
SDCI Valuation: $522,513
Occupancy Cert Required: N
Special Inspections: Y
Land Use Conditions: N
Separated Use: N **Site Final Required:** Y

Building Info:

Basements:	0
Stories:	3
Mezzanines	0

Housing & Dwelling Unit(s) this Permit:

Unit Type	DU?	Units	Add	Remove
Detached Single-Family	Y	1	0	1
Townhouse	Y	0	6	0

Zoning/Overlay:
LR2 (M1)
Council District 6
URBAN_VILLAGE Yes,
FREQ_TRANSIT_SRVC_
AIRPORT_HEIGHT_DIST
Additional Information on File

Occupancy per Building Code	Approved Use per Land Use Code

Washington State Department of Labor & Industries
Contact | My L&I: Sign In | Search L&I

Safety & Health | Claims | Patient Care | Insurance | Workers' Rights | Licensing & Perm

Home > Licensing & Permits >

Contractors

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Blackwood Builders Group LLC

Owner or tradesperson
Principals
Johnson, Trevor James, PARTNER/MEMBER more...
Doing business as
Blackwood Builders Group LLC

118 S.E. EVERETT MALL WAY
Everett, WA 98208
206-276-9275
SNOHOMISH County

WA UBI No.
603 356 920

Business type
Limited Liability Company
Governing persons
TREVOR JOHNSON more...

Registration

Verify the contractor's active registration / license / certification (depending on trade) and any past violations. Questions about licenses?

Construction Contractor

Active
Meets current requirements.

License specialties
GENERAL What can they do?

License no.
BLACKBG862B2

Effective — expiration
01/22/2014— 01/23/2026

L&I Contractor Registration:

Figure: New construction permit

Local vs regional contractors

E.g. Meritage Homes Corporation, a publicly traded real estate development company. 5th largest in the U.S.

A summary of Meritage's year-over-year results for certain key metrics follows (dollars in thousands):

	2024	2023	Change
Home Closing Units	15,611	13,976	11.7%
Home Closing Revenue	$ 6,341,546	$ 6,056,784	4.7%
Home Order Units	14,606	13,193	10.7%
Home Order Value	$ 5,950,708	$ 5,675,892	4.8%
Orders Pace (1)	4.3	4.0	7.5%
Quarterly Backlog Conversion Rate (2)	177.1 %	109.5 %	n/m
Home Closing Gross Margin	24.9 %	24.8 %	10 bps
Commissions and other selling costs and general and administrative expenses (as a percentage of home closing revenue)	10.1 %	10.2 %	(10) bps
Earnings Before Income Taxes	$ 1,002,870	$ 949,430	5.6%
Diluted Earnings per Common Share (3)	$ 10.72	$ 9.96	7.6%
Book Value per Common Share (3)	$ 71.49	$ 63.31	12.9%
Dividends Declared and Paid per Common Share (3)	$ 1.50	$ 0.54	177.8%
Shares of Common Stock Repurchased	1,464,510	875,764	67.2%
Return On Assets (4)	13.2 %	14.6 %	(140) bps

(1) Calculated as number of net home orders per average active community per month.
(2) Calculated as quarterly home closing units divided by beginning backlog. Most recent quarter (fourth quarter) is provided for each period.
(3) Per share amounts have been retroactively adjusted to reflect the 2-for-1 stock split that was effective on January 2, 2025.
(4) Calculated as net earnings divided by the average of five trailing quarters total assets, less cash and cash equivalents.

The market for new homes was healthy in 2024 as the largest U.S. population cohorts of the millennial, Gen Z and baby boomer generations continue to need affordable, move-in ready homes. While demand was stable, volatile and elevated interest rates resulted in increased need for interest rate assistance for potential homebuyers to help with monthly mortgage affordability. Supply chain and labor market disruptions, shortages and other economic-related disruptions that impacted construction cycle times for the homebuilding industry during 2022 and 2023 stabilized in 2024. Throughout 2024, we further reduced our construction cycle time and reached normalized cycle times of approximately 120 calendar days by the end of the year. The increased capacity in supply chain has resulted in an overall decrease in our material costs over the past few years, and our higher volume allowed us to capture additional volume discounts from our national vendors. Land costs remained elevated in 2024 following several years of historically high land development activity and negatively impacted our margins. Our NEO's and management team have remained dedicated to our focus on providing affordable homes. Financing incentives were utilized more heavily in 2024 to assist our homebuyers with monthly mortgage affordability and we entered into new markets that we believe will expand our move-in ready, affordable home offering footprint. Midway through 2024, we introduced a strategic shift of selling homes later in the construction process in order to enable us to compete more effectively with the resale home market by shortening the delivery time from sale to close, aligning more closely with typical resale home closing timelines. We achieved record home closing units and home closing revenue in 2024, which delivered growth in book value per common share and diluted earnings per share. We also returned capital to our stockholders during 2024 by repurchasing 2.0% of the shares outstanding at the beginning of the year for $125.9 million and paying dividends totaling $108.6 million.

Figure: SEC Form DEF 14A of 2024

Regional exits?

10-Q - 04/25/2025 - Meritage Homes Corporation 20 / 44 154%

NOTE 14 — OPERATING AND REPORTING SEGMENTS

We operate with two principal business segments: homebuilding and financial services. As defined in ASC 280-10, *Segment Reporting*, we have twelve homebuilding operating segments. The homebuilding segments are engaged in the business of acquiring and developing land, constructing homes, marketing and selling those homes and providing warranty and customer services. We aggregate our homebuilding operating segments into reporting segments based on similar long-term economic characteristics and geographical proximity. Our three reportable homebuilding segments are as follows:

West:	Arizona, California, Colorado and Utah
Central:	Tennessee and Texas
East:	Alabama, Florida, Georgia, Mississippi, North Carolina, and South Carolina

We define our segments based on the way in which internally reported financial information is regularly provided and reviewed by the CODM to analyze financial performance, make decisions, and allocate resources. Our CODM is the chief executive officer. The CODM's evaluation of the homebuilding segment performance is based on segment home closing revenue, home closing gross profit/(loss), home closing gross margin, total gross profit/(loss), commissions and other sales costs, general and administrative costs incurred by or allocated to each segment, including impairments, and operating income/(loss). The CODM uses these performance metrics predominantly in the annual budget and forecasting process and considers budget-to-actual variances on a quarterly basis for these measures when making decisions about the allocation of operating and capital resources to each segment. The CODM also uses these data points to assess the performance of each segment by comparing the results of each segment with one another and in determining the compensation of certain employees. The CODM also reviews financial services profit/(loss) to evaluate the performance of the financial services segment and make decisions about allocation of resources and financial services related product offerings.

Effective January 1, 2025, we realigned our internal organizational structure and resources following continued growth and recent entry into new markets. As a result of the change in our organizational structure, the Tennessee homebuilding operating segment was reclassified from the East reporting segment to the Central reporting segment for the purpose of making

Figure: SEC Form 10Q of 2025Q1

Other comments

- Results in A5 look like an effect following recession from 2008 as SFRs are hit the most
- Alternative story to price increase: removal of disamenity value associated with immigration settlement and native flights
- Table 1 should report the LEFB/Hispanic share of construction labor
- "LEFB" should have been defined the first time it appeared on page 4