

Virginia Tech Center for Housing Research

2004/05 Annual Report

Mission Statement

The Virginia Tech Center for Housing Research strives to improve the affordability, durability, and quality of housing by creating knowledge through research. The Center serves as a resource to policy makers, communities, and businesses for research, information, and technical assistance on affordable housing.

Since its creation by the Virginia General Assembly in 1989, the Center has built its reputation for quality and productivity through a diversified portfolio of research contributing to affordable housing in Virginia and the nation. To this end, the Center conducts research on:

- Housing Needs & Markets
- Housing Technology
- Home Ownership
- Nonprofit Housing
- Assisted Housing, and
- Fair Housing

Classification of Center and Key Personnel

Interdisciplinary University Center

Center Director: C. Theodore (Ted) Koebel

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In January 2005, Michael O'Brien replaced Ron Wakefield (left Virginia Tech in December 2004 to become Head of the School of Property, Construction and Project Management at RMIT University in Melbourne, Australia) as Associate Director for Housing Technology Research.

Significant Accomplishments in 2004-05

Significant accomplishments of center and faculty associated with center for year ending June 30, 2005.

We continued working with affiliated faculty from the Departments of Building Construction, Architecture, and Urban Affairs and Planning as part of the current building technology research contract with the U.S. Department of Housing and Urban Development (HUD). Michael O'Brien, Professor of Building Construction completed work on two whole house projects 1) Creating Whole House Solutions and 2) Designing Whole House Solutions. New projects included continuing work on Industrializing the Construction Site (Phase V, Virtual Manufacturing) which was modified and extended for an additional 18 months. After the departure of Ron Wakefield, Thom Mills, Associate Professor of Building Construction took over the lead on this project. The Center was awarded and began work on two additional projects under the HUD IQC and on one as a subcontractor under the small business HUD IQC. Ted Koebel, Professor Urban Affairs and Planning and Director, Center for Housing Research is the principal

investigator on a project that is looking at how large production builders make decisions to use innovative processes and products. John Randolph, Director of the School of Public and International Affairs and Chris Nelson, Professor of Urban Affairs and Planning are conducting research for HUD on environmental regulations as barriers to affordable housing and, in related research, Chris Nelson is working through Newport Partners on alternatives to impact fees. Funding awarded in 2004/2005 for HUD technology research exceeded \$665,000.

Our housing technology research has resulted in national prominence as Dr. Koebel participates in the Affordability Metrics task force (HUD and NIST). Ted Koebel and Michael O'Brien were invited to Orlando, Florida to participate in an NSF-PATH panel on Housing Technology, Community and the Economy. The panel was organized to identify the most important social systems research affecting the attainment of the PATH goals to improve housing. In February 2005, Ted Koebel was invited to Cancun, Mexico by HUD's Office of Policy Development and Research to take part in a U.S.- Mexico forum on Public-Private partnerships for Housing Innovation.

The Center was funded by the US Department of Housing and Urban Development (HUD) to administer our second two-year Community Development Work Study Program for 2004-2006. This program (\$90,000 over 2 years) focuses on community building and provides graduate student fellowships to three economically disadvantaged graduate students (three students successfully completed the 2002-2004 program). The main focus of the program is to integrate professional practice, research, and course work within the student's academic program with the intended goal of preparing students for careers in a community building field. We applied (and have been awarded funding) for the 2005-2007 HUD Community Development Work Study Program that includes two-year fellowships for three additional economically disadvantaged graduate students interested in community building.

The Center continued working with localities on housing needs and market analyses including completing a projects for the Chesapeake, Virginia Redevelopment and Housing Authority, the City of Virginia Beach, Fairfax County, Virginia, Augusta County, Virginia, and Prince William County, Virginia. We also completed a first-time homebuyer market analysis of the Virginia Beach MSA for Community Housing Partners. We completed a project working with the Virginia Department of Housing and Community Development on their continuum of care plan for serving the needs of the homeless and continued work on the evaluation of the Virginia weatherization project.

The Center continues to provide on-going research support for state and local housing organizations. Dr. Koebel serves as a taskforce member for the Virginia Housing Study Commission and on boards of non-profit housing organizations. The Center was a sponsor for the 2004 Governor's Housing Conference, Norfolk, Virginia which provided a forum for showcasing our research projects and disseminating information to the Virginia housing community.

In fall 2004, Ted Koebel traveled to Vilnius, Lithuania to attend the 2nd WHO International Health and Housing Symposium where he presented a paper with Jim Bohland on housing and health. Hyeon-sook Chun, a visiting Professor of Design and Housing from the Korean Institute for Metropolitan Studies and hosted by the Center for Housing Research for a year, completed her tenure in August 2004.

Contracts Received in 2004-05

Grants and contracts received in year ending June 30, 2005.

Community Development Work Study Program, 2004-2006 (HUD)	\$90,000	Award, Aug. 2004
Consolidated Plan Support for Fairfax County Characteristics of Innovative Production Homebuilders (HUD)	\$34,351	Award, Sept. 2004
Study of Impact of Environmental Protection Regulatory Processes on Affordable Housing (HUD)	\$190,185	Award, Sept. 2004
Alternatives to Impact Fees for Financing	\$299,417	Award, Sept. 2004

Development and Infrastructure, Virginia Tech Subcontract to Newport Partners Consulting Services to Prince William County Workforce/Affordable Housing Task Force	\$121,957	Award, Sept. 2004
Industrializing the Construction Site, Phase 5: Virtual Manufacturing Modification (HUD)	\$19,999	Award, Sept. 2004
Homebuyer Market Analysis Proposal for Community Housing Partners	\$243,980	Award, Oct. 2004
Proposed Consulting Services to Create a Housing Needs Analysis for McDowell County, WV	\$8,600	Award, Oct. 2004
	\$19,861	Award, June 2005

Proposals Submitted in FY05 or Pending

Date is provided for those awarded after June 30, 2005

Modeling Adoption and Diffusion of Residential Construction Innovations (NSF)	\$299,869	Award, Aug. 2005
Facilitating Supply Chain Support for The Commercialization of Innovative Products in the Residential Construction Market (NSF)	\$280,000	Award, Aug. 2005
Impact of Restrictions on Manufactured Housing (HUD)	\$298,754	Award, Sept. 2005
PATH 13 – Whole House Calculator (HUD)	\$229,843	Award, Sept. 2005
HUD Community Development Work Study Program, 2005-2007	\$90,000	Award, Sept. 2005
Urban Containment and Socio-Economic Change (HUD)	\$39,350	Pending
Research on National Regulatory Barriers Database, Phase I (HUD)	\$295,511	Not Awarded
Research on National Regulatory Barriers Database, Phase II (HUD)	\$295,187	Not Awarded
PATH 25 Commercialization Tools (HUD)	\$393,783	Not Awarded
Utilities and Panelized System Interface (HUD)	\$186,837	Not Awarded
VT COPC in Martinsville (HUD)	\$423,645	Not Awarded

Goals for 2005-06

- Adjust to changes in key personnel in housing center
- Further develop nationally supported housing policy research
- Continue to influence the HUD research agenda and national housing policy
- Provide on-going research support for state and local housing organizations.