






Adapting Florida's Affordable Housing Needs Assessment Methodology to Brazil

Joseli Macedo
 Diep Nguyen
 William J. O'Dell
 Marc T. Smith
 University of Florida
 Shimberg Center for Affordable Housing

M. Vitor Serra – World Bank
 Maria da Piedade Morais
 Santiago F. Varela
 George A. da Guia
 Alexandre Paixao
 Paulo A. Rego
 IPEA



Basic Dimensions of Original Model Data Elements

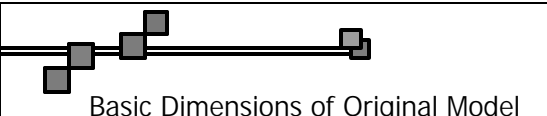
■ Demand

- Population
- Population by age
- Cross-tabulation of household characteristics
 - tenure
 - age of head
 - size
 - income
 - cost burden

■ Supply

- Housing inventory
- Seasonal occupancy
- Vacancies

- Definition of data elements reflect, in part, housing program requirements



Basic Dimensions of Original Model Methodology . Demand

■ Process

- Population projections by age (two decennial census + current estimate)
- Headship rates for the cross-tabulation of five characteristics
- Combine headship rates with population by age projections to produce projected households

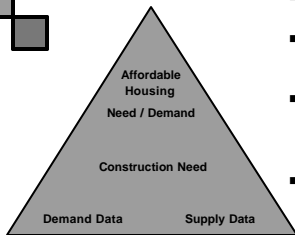
■ Assumptions

- Household formation rates remain constant in their 2000 proportions
- Changes in the age distribution of the population lead to shifts in other characteristics
- Estimates and projections are made for permanent, non-seasonal population

Basic Dimensions of Original Model Methodology . Supply

- Process
 - Combine household projections and assumed vacancy rate to produce demand for units
 - Estimate current supply
 - Remove seasonal units from current estimate of supply
 - Construction need is the projected demand minus the existing supply
- Assumptions
 - Assumed vacancy rate is constant over the projection horizon
 - Count all available units regardless of condition or overcrowding

Results

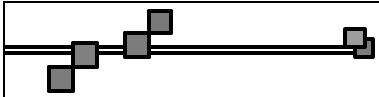


- Population by age, 2003 – 2025
- Cross-tabulated household characteristics (5) . 2003 – 2025
- Estimate of affordable housing (need)
 - Income
 - Income by cost burden
- Construction need

Concepts affecting the adaptation process


- Definitions
 - land and house tenure
 - adequate shelter and infrastructure
 - family
- informal vs. formal
- land tenure as a measure of security
- standard and substandard conditions
- shared households and overcrowding

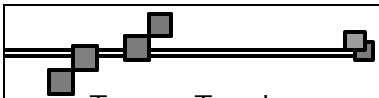




Demand Data . Brazil Model


- population projections
 - split and new municipalities
 - metropolitan areas
- household formation rates
 - household vs. family
- tenure
 - house vs. land
- age of head of household
- size of household
- income of household
 - monthly minimum wages

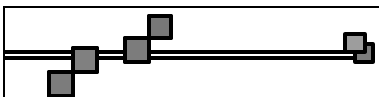




Tenure Typology


- Brazilian Census
- land ownership
 - próprio, cedido, outra condição
- housing unit
 - próprio já pago ou ainda pagando, alugado, cedido por empregador ou por outros, outra condição
- settlement type: 50+
- infrastructure: sewer or septic tank, indoor plumbing
- PNAD vs. Census 2000
- Premises
 - lack of land title does not necessarily constitute a housing need
- no-cash renters
- "others" & "improvised" = substandard
- cômodos classification consistent with methodology

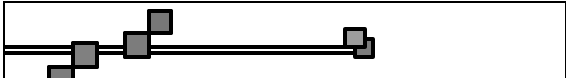




Tenure Typology

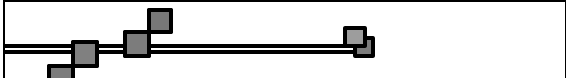
- Florida Model
 - owners
 - renters
- Brazil Model
 - owners standard
 - owners substandard
 - renters standard
 - renters substandard





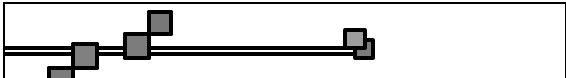
Age of Head of Household

- Age Groups
 - 15 – 24 years old
 - 25 – 34 years old
 - 35 – 44 years old
 - 45 – 54 years old
 - 55 – 64 years old
 - over 65 years old
- cultural differences
- "late-stayers"



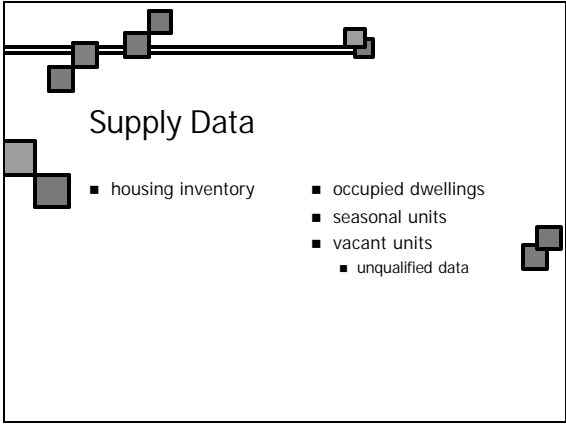
Household Typology

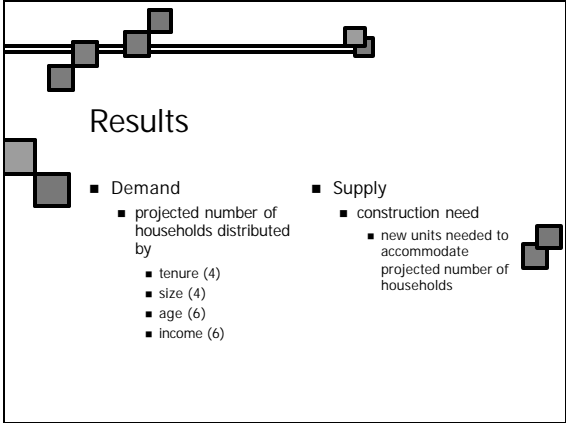
- Brazilian Census
 - family
 - household
- Size of household
 - one to two persons
 - three persons
 - four persons
 - five or more persons
- Premises
 - extended family
 - multiple families
 - choice vs. need
 - secondary families
 - overcrowding constitutes a housing need
 - "spin-offs"
 - very few one-person households

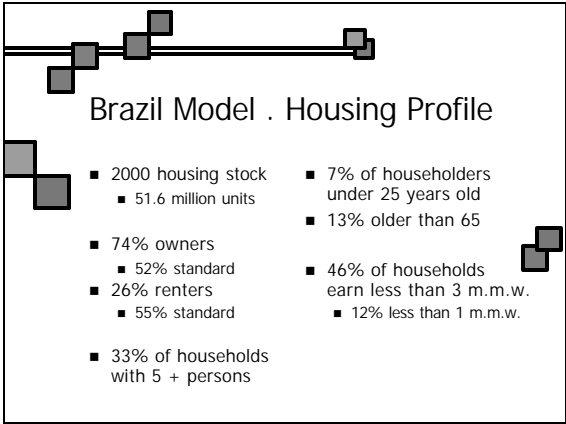


Income Typology

- Income categories
 - less than 1 m.m.w .
 - 1 to 1.99 m.m.w .
 - 2 to 2.99 m.m.w .
 - 3 to 5.99 m.m.w .
 - 6 to 11.99 m.m.w .
 - over 12 m.m.w .
- Florida Model
 - jurisdiction medians
- Brazil Model
 - low-income majority
 - monthly minimum wage (m.m.w .)
 - housing programs







Brazil Model . Projections

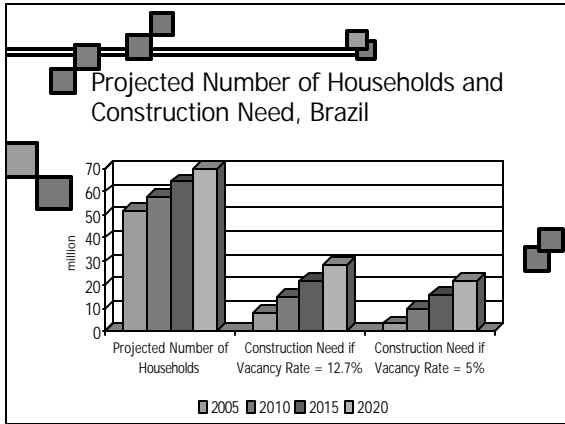
- Population projections
 - 2000: 170 million
 - 2010: 190 million
 - 2020: 211 million
- Household Projections
 - 2000: 47 million households
 - 45 million - Census
 - 2 million - "spin-offs"
 - 2020: 70 million households

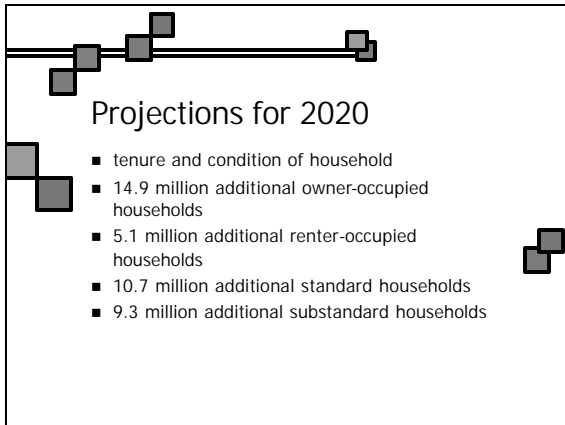
Observations

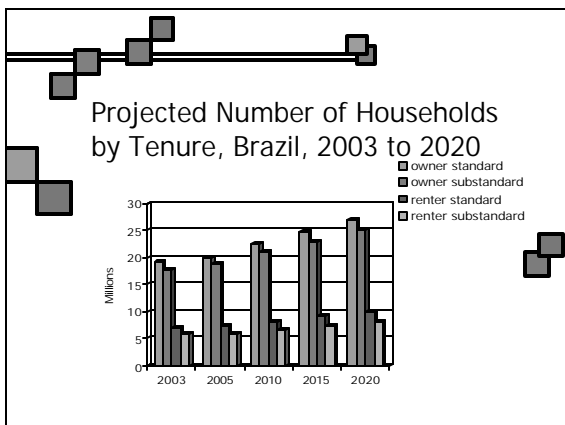
- little difference in income across age categories
- little variation in the percentage of owners and renters across age categories
- given the assumptions made, half of the households are substandard
- 40% of households making less than 1 m.m.w. are large households (5+)

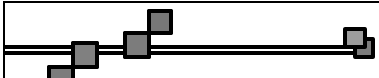
Observations

- households with higher incomes, regardless of age, have more access to ownership and are more likely to occupy standard housing
 - 66% earning less than 3 m.m.w. live in substandard conditions
 - 82% earning more than 12 m.m.w. live in standard conditions
- vacancy rates are much higher than expected (12.7%)











Projections for 2020

- households with one or two persons will increase by 44%
- 2.3 million additional households will earn less than 1 m.m.w.
- 9 million additional households will earn less than 3 m.m.w.
- 28 million additional units if vacancy rate remains at 12.7%





Not Lost in Translation...

- focus on aspects of Florida Model that may be changed in the near future
- importance of vacancy rates
- further research concerning conceptual issues
 - tenure
 - shared households: choice or need ('spin-offs')
 - cómodos, improvisados, outros
 - cost burden

