Education for What: The Rising Demand for Skill and the Decline of Manual Labor

Stephen J. Rose State Higher Education Executive Officers July 12, 2012

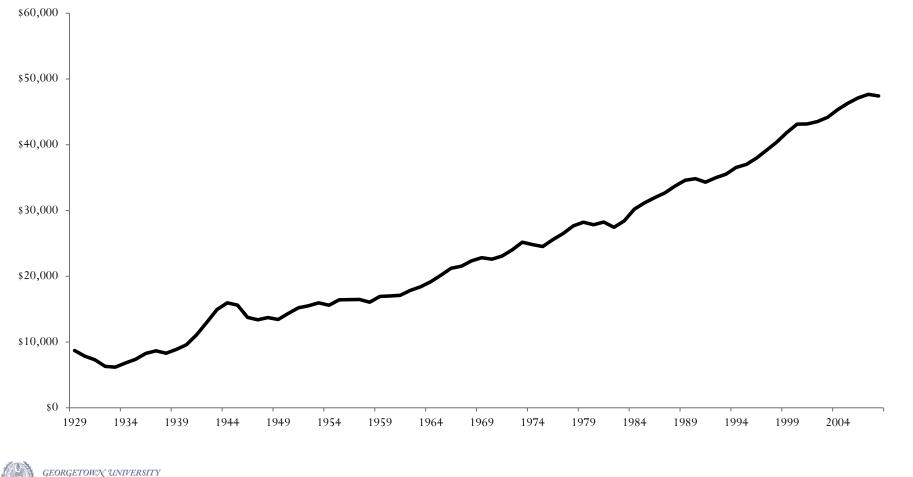


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Most Americans Think That The Expansion of Higher Education Has Had A Lot To Do With Our Strong Economic Growth

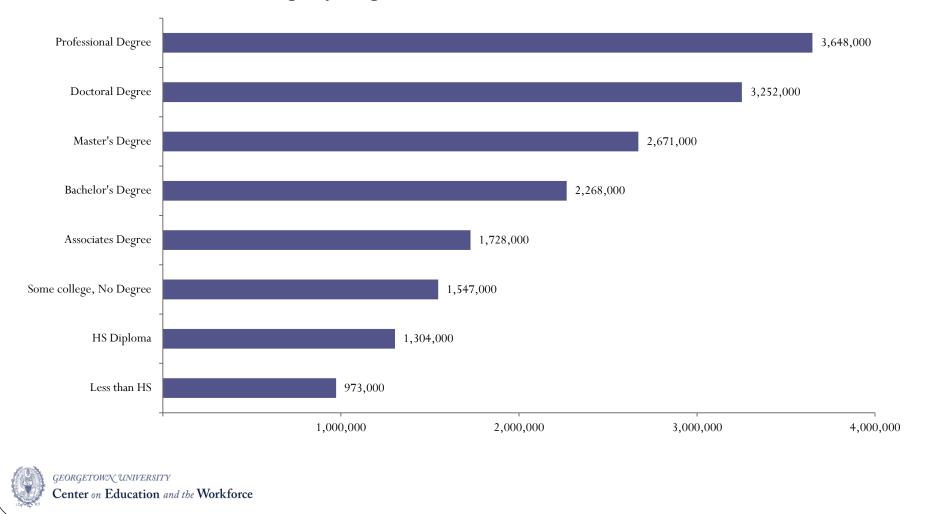
Real GDP Per Person, 1929-2008, 2008 Dollars



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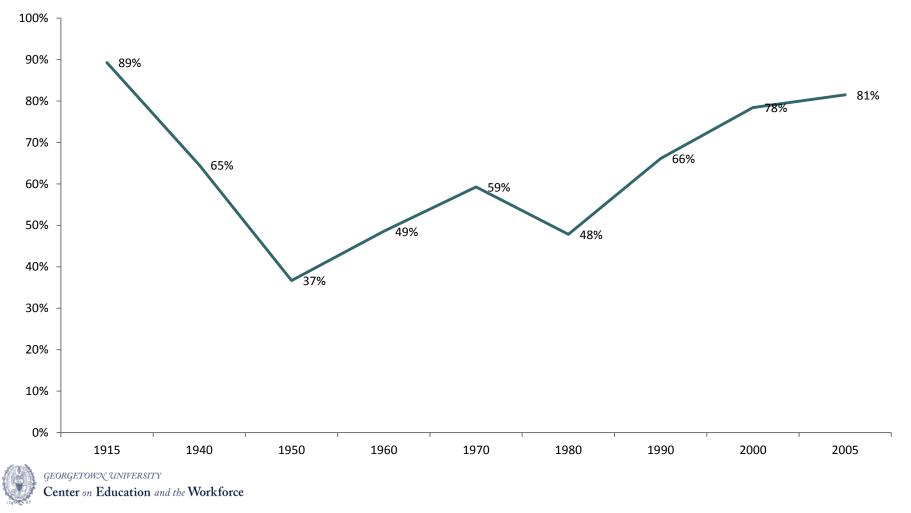
More Education Results in Higher Earnings

Lifetime Earnings by Highest Educational Attainment, 2009 Dollars

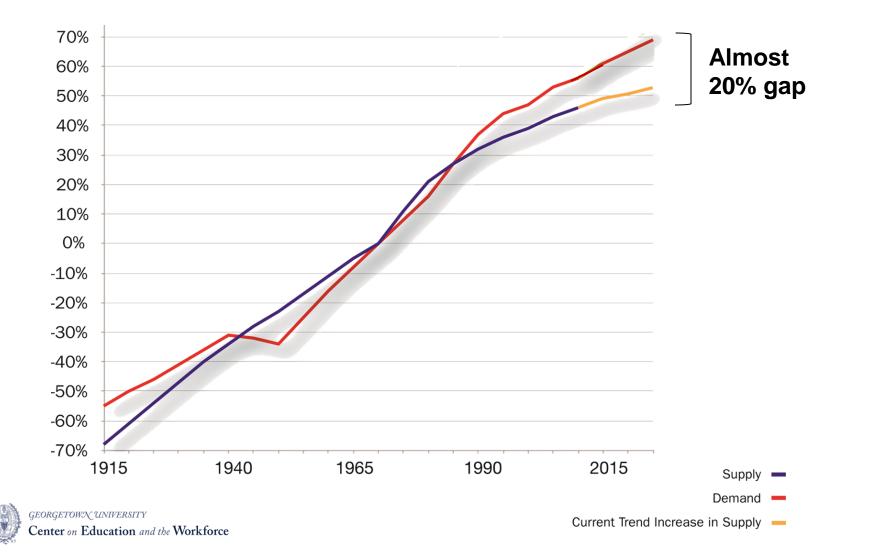


The Premium For Getting A College Degree Has Grown In the Last Thirty Years Because of Rising Demand For College-Level Skills

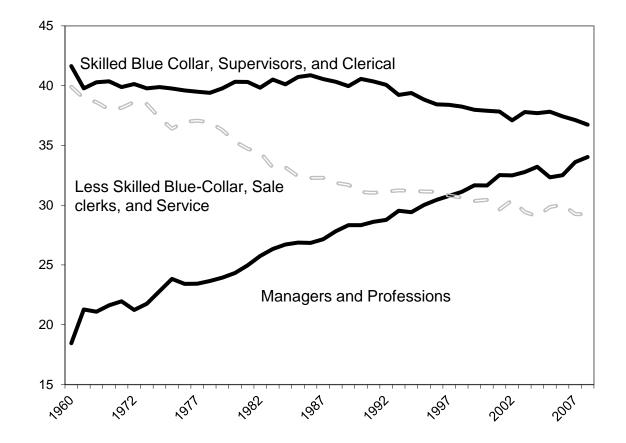
College Wage Premium Over High School, 1915-2005



If We Don't Increase The Number of People with Certificates and College Degrees, Our Economy Will Underperform

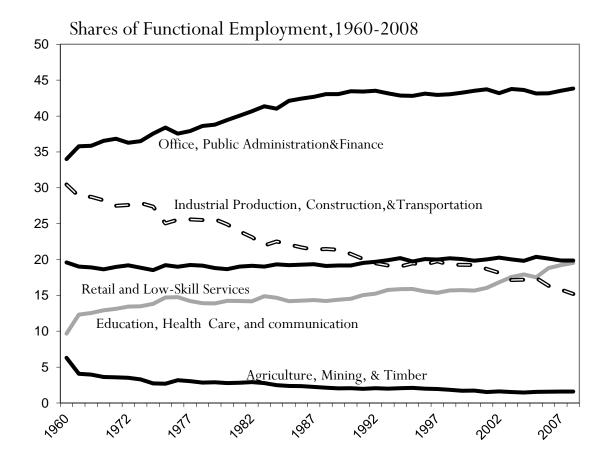


The Rise in Managerial and Professional Jobs, Three Occupation Tiers, 1960-2008



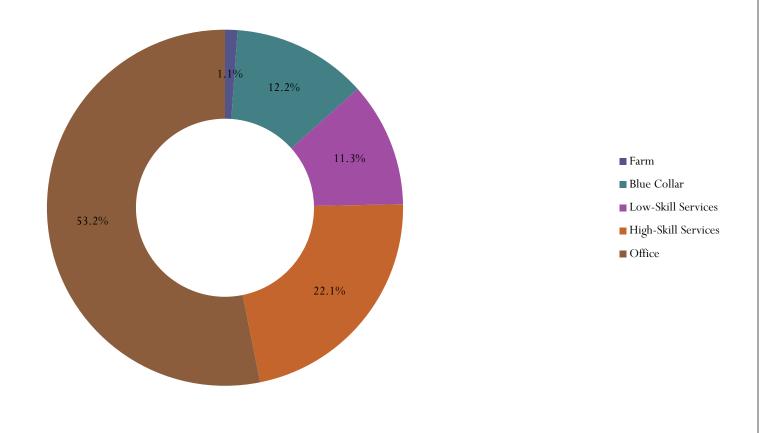


The economy has shifted from manufacturing to office work and high end services, areas that benefit more from greater skills associated with postsecondary education.



75% of Earnings Go to Office and High-Skill Workers

Share of Total Earnings by Functional Area, 2009





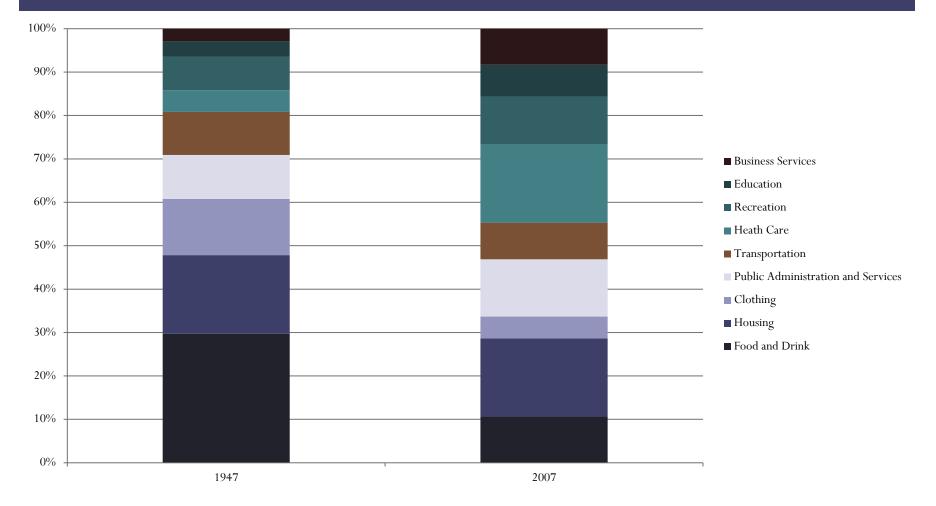
Understanding Structural Change by Deconstructing Value Chains over Time

Using Input-Output Tables to show complete "value chains"--the direct and indirect inputs needed to produce final output.

Technological change means that it takes a smaller share of our resources to produce common goods and services. For example, in 1947, food and clothing were 43% of what we consumed; the comparable figure in 2007 was 16%.

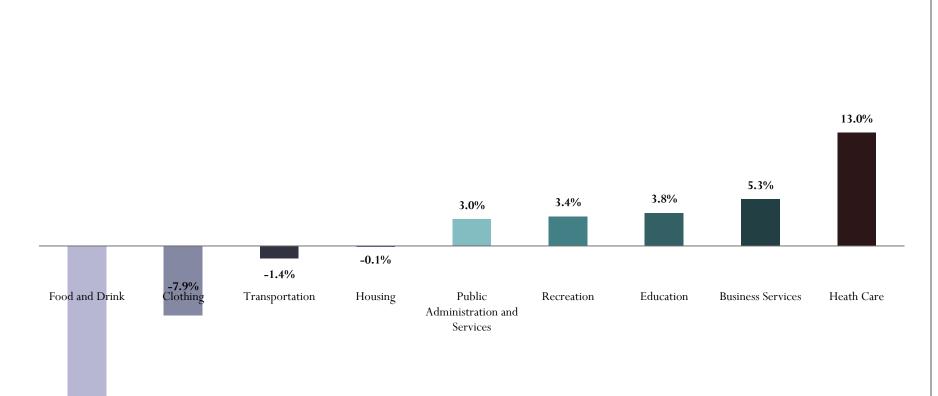


The Changing Composition of What We Consume, 1947 - 2007





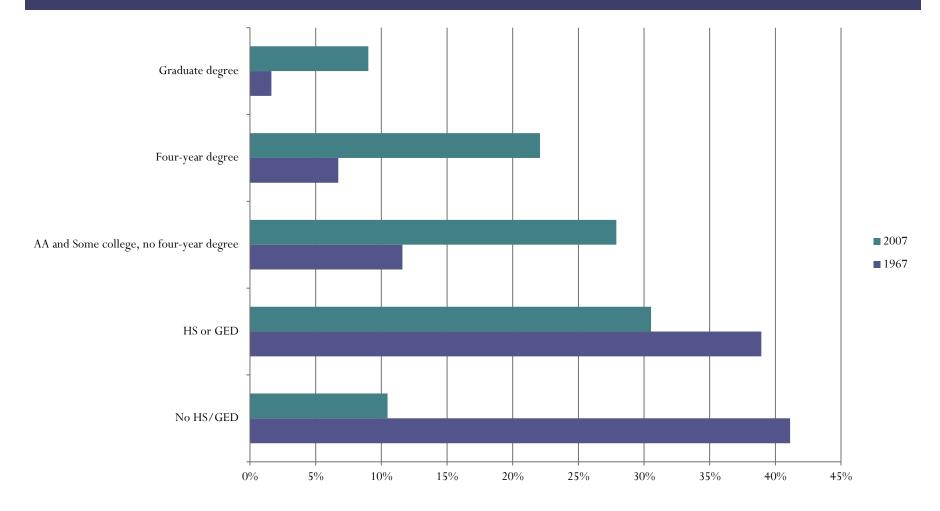
Changing Shares by Type of Consumption, 1947-2007



-19.1%

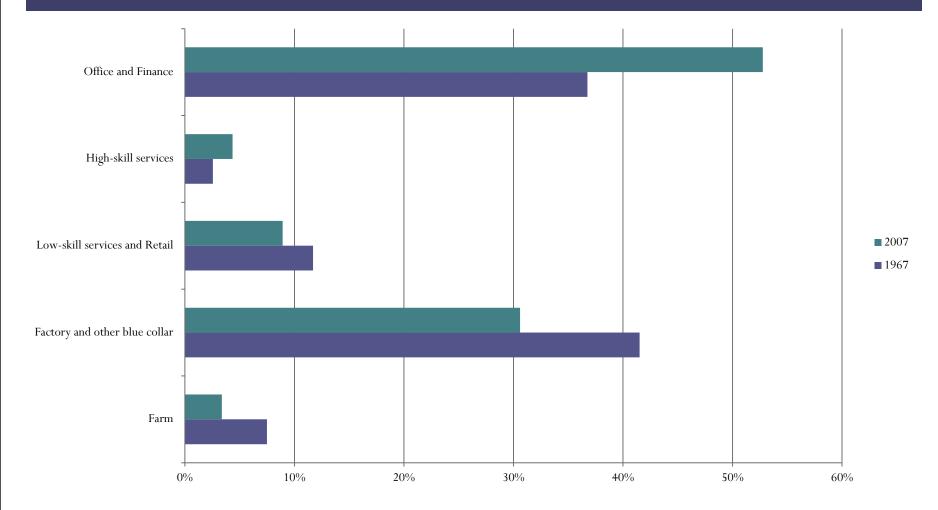


Changing Educational Composition in Producing Exports, 1967-2007





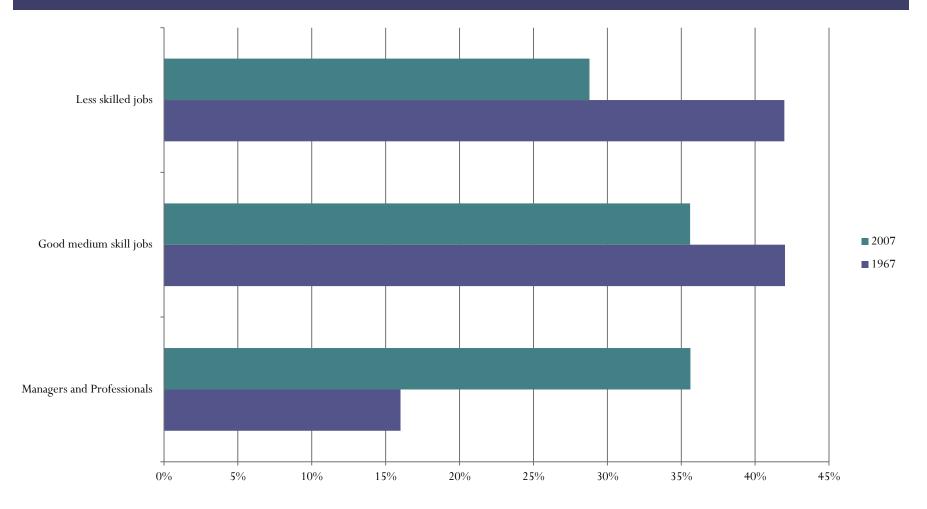
Changing Functional Composition in Producing Exports, 1967-2007





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Changing Occupational Composition in Producing Exports, 1967-2007





Rising Demand for College-Educated Workers, and Triple Whammy for Manual Workers

- First, final output has shifted from goods production (food, clothing, transportation) to services (health care, business services, and education).
- Second, within each activity, the industrial share of raw material and manufacturing industries needed to produce final output has declined: e.g., in 1967, 26% of the value of food and drink came from farming and food manufacturing industries; in 2007, the comparable figure was 13%.
- Third, within manufacturing industries (and all other industries), the share of production workers out of total employment has declined.



In the Future, Most Young People Will Need Some Form of Postsecondary Education

- The wages of those with a HS diploma or less have been falling.
- A growing option is occupationally-focused certificate from a Community College or private for-profit school.
- Placement matters: Those with a certificate earn 37% more if they work in an occupation for which they have been trained.
- In two- and four-year colleges, there have been fewer students majoring in liberal arts and the humanities because of low earnings of recent college graduates.
- The earnings premium for getting a BA remains at a high level
- More BA graduates are getting a graduate degree, and more are getting jobs in business and not just education or health care.

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Questions?



