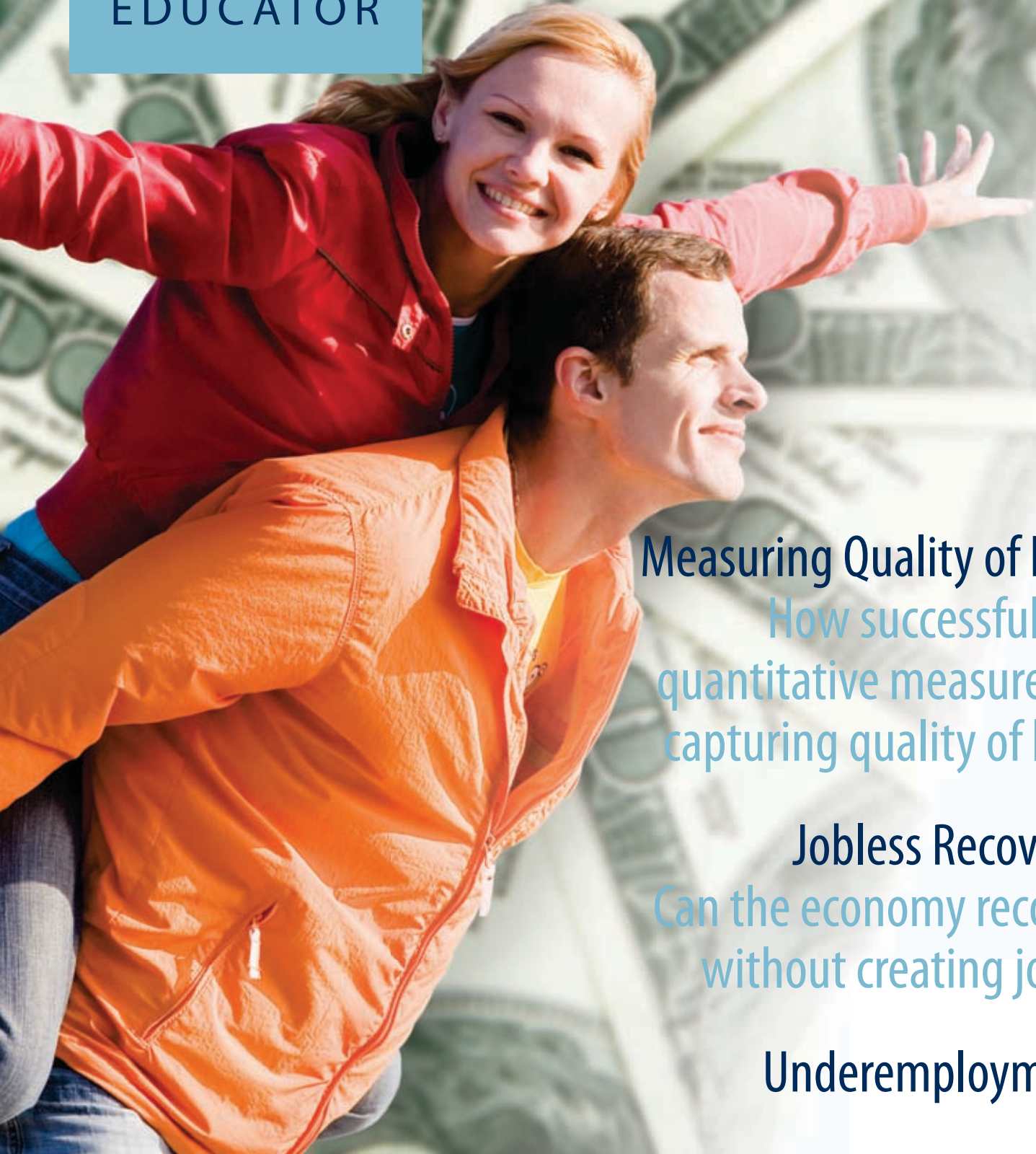


5 **E**

EDUCATOR



Measuring Quality of Life:
How successful are quantitative measures in capturing quality of life?

Jobless Recovery:
Can the economy recover without creating jobs?

Underemployment



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The *5E Educator* provides K-12 teachers with content to enhance understanding of economics. It also offers lesson plans and Federal Reserve resources to reinforce state and local curriculum. We seek to enrich the learning experience for students and to highlight the importance of economics in the process of every day decision making.

To sign up to receive the online *5E Educator*, visit: www.richmondfed.org/publications/education/5e_educator/

Dear Educators,



The recent recession and recovery have emphasized the importance of economic and financial education in helping the public – including students – make informed financial decisions. After all, these are key decisions that can shape our financial health. In this issue of the *5E Educator*, we consider such timely questions as: What is a jobless recovery? Why, and how, do we measure the quality of life? How do we measure underemployment?

Our featured article, “Measuring Quality of Life” examines whether income alone defines quality of life. Since decisions about pursuing higher education factor into a person’s capacity for financial success, we explain economic terms like “jobless recovery” and “underemployment.” The lesson plans also highlight economic concepts such as wants,

income, consumers, GDP, GDP per capita, unemployment, and the role of the Federal Reserve System in the promotion of economic growth.

We also would like to share some exciting news. In July, we will open a new exhibit in Richmond. This interactive exhibit correlates with Virginia Standards of Learning for Economics and Personal Finance, and provides insights into how people’s economic choices affect the economy and the U.S. standards of living.

As always, we hope you will find this issue of the *5E Educator* helpful to your teaching efforts.

My regards,

Jeffrey Lacker
President
Federal Reserve Bank of Richmond



Hallway Monitor

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Class in Session

Measuring Quality of Life

This excerpt titled “Measuring Quality of Life” is from an article published in the Federal Reserve Bank of Richmond’s, *Region Focus Summer 2009* issue by staff writer, Renee Courtois. To access the full article, please follow the link cited at the end of the excerpt.

How do you know when a country’s “standard of living” has improved? Economists often use average income, as measured by real (inflation adjusted) gross domestic product (GDP) per capita, as a gauge of a country’s current standard of living and changes to that standard over time. This seems to make sense: Income is what allows us to buy necessities and indulge in luxuries. Average income is also a widely available way for economists to analyze living standards, as it allows comparisons across time and different countries.

But do measures like average income, relatively easy for economists to crunch, really illustrate the quality of life in a country? In 1968 politician Robert F. Kennedy succinctly proclaimed that measures of income tell us “everything, in short, except that which makes life worthwhile.” What he likely had in mind is that income alone does not capture qualitative aspects of life, like how safe we feel, or whether we have the freedom and ability to do things to improve our own quality of life. So if measures other than income might help define our overall quality of life, should policymakers consider them when crafting economic policy?

A Measure of Well-Being

At its core, economics is largely about how people strive to make their lives better. As individuals trade and transact with each other out of self-interest, economists assume they are “utility”

maximizers. Anything you do is meant to give you as much utility — happiness or fulfillment — as possible. What does utility look like in the real world, and how do we measure it? Economic theory can explain why economists tend to equate utility with income. “Revealed preference theory,” first developed in the late 1930s and 1940s, is based on the assumption that if you opt to go out to dinner instead of seeing a movie or using that money to purchase anything else (including items bought in the future), then your choice is the one that you estimated would best maximize your utility. Because people optimize, the theory goes, observing your actions — that is, your revealed preferences — is a way for outsiders to identify what is in your best interest. Because you will use an increase in income to further pursue those interests, economists generally believe policies that increase income will also increase utility or welfare. Tracking economic growth is therefore a way to gauge improvements in welfare. There are criticisms of income as a measure of wellbeing, however. One is simply how GDP is measured and what it really captures. On a national scale, economic growth can create negative externalities that GDP figures ignore. Environmental degradation is a good example. Production that creates pollution imposes a cost on society that may not be priced into the cost of production itself. That means the true “social” value of that production is overstated by GDP. National wealth statistics also miss some positive elements, such as what economists call “consumer surplus.”

Economist Justin Wolfers at the University of Pennsylvania has done some serious thinking about this issue. He estimates that TiVo — a device that allows the user to digitally record television shows for fu-

ture playback and lets the viewer zip past the commercials — saves the average TV watcher the equivalent of thousands of dollars a year in time efficiency. The price is only the couple hundred dollars per unit that is reflected in GDP. “What we do to calculate GDP is value everything by what we pay for it,” Wolfers says. “But if you were to ask people what they would pay, then you get a measure more like well-being.”

The Root of All Utility?

Even if we could perfectly adjust GDP to account for “bads” and “goods” like negative externalities and consumer surplus, there may still be more to cultivating well-being than maximizing income variables. Broader ideas of well-being reach as far back as Aristotle’s ideas on human happiness. To Aristotle, happiness meant flourishing by achieving one’s full potential and living a truly good and meaningful life. To determine whether someone has achieved that requires knowing more than what his paycheck looks like.

If You’re Happy and You Know It

What alternatives do we have to using income to measure the standard of living? One approach is to survey people directly about their quality of life. Such studies on “subjective well-being” have the benefit of potentially collapsing several aspects of life quality into one variable. In a 2008

paper, Wolfers and economist Betsey Stevenson, also from the University of Pennsylvania, studied subjective well-being data and came to three conclusions. First, within a country, rich people tend to

be happier than poor people. Second, the inhabitants of rich countries are happier on average than poor countries.

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Class in Session

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Finally, the inhabitants of countries actually get happier as they get richer: In other words, average happiness rises over time with economic growth. Money seems to indeed “buy” happiness — or, at least, correlates closely with it — more in line with traditional neoclassical ideas regarding revealed preferences. The result that economic growth over time is associated with rising average happiness was actually quite controversial. It appeared to overturn the famous Easterlin Paradox, named for its founder, economist Richard Easterlin. He found in the 1970s that, over time, average happiness levels in a country don’t improve as the country gets richer. Easterlin hypothesized at the time that this suggested a strong role for how people view relative income in determining their happiness. Research indeed seems to suggest that people largely use their peers as a frame of reference. As the economy and incomes grow, the material standing of your peers grows along with your own, with the result being no change in your relative status. In contrast, Wolfers and Stevenson’s study on aggregate happiness implies a smaller role for policy to focus on relative income and instead a greater emphasis on absolute income. All told, it is probably the case that both absolute and relative income play a role in happiness. The ability of survey measures to grasp aspects of well-being that concrete measures like income can’t capture is a big part of their appeal. Yet it can also be a hindrance, because any measure of well-being that is highly subjective is going to be hard to use as a policy metric. There is also the fact that both income and measures of happiness are highly correlated with other things that we think of as critical to life quality, like good health and educational attainment, yet causal relationships between all these variables are hard to draw. But there is still something reassuring about subjective well-being studies: If it is true life quality we’re trying to assess, measures of income and of happiness might be on the right track. “As a practi-



Snacks

Interested in connecting the recent recession and recovery with this month’s feature article? You may want to consider discussing the following terms with your students.

Jobless Recovery

The financial turmoil and beginning of the subsequent rebound have heightened interest in employment and output statistics. “Jobless recovery” is used to describe a recovery where despite an increase in real GDP, employment remains weak. Since GDP growth and employment growth seem directly related, how is this possible? Productivity growth is one answer.

Productivity is defined as output per hour of work. Therefore, by definition, a period in which output is growing but work hours are not, must be a period of productivity growth. Productivity growth can be achieved when a leaner workforce puts forth extra effort and implements efficiency enhancing improvements. In the long run, productivity growth boosts real incomes and leads to more efficient industries.

For more information on a jobless recovery, check out the Winter 2004 edition of *Region Focus*: http://www.richmondfed.org/publications/research/region_focus/2004/winter/pdf/jargon_alert.pdf

Underemployment

One of the effects of the recent recession and jobless recovery is underemployment. Captured by the Bureau of Labor Statistics, the U-6 survey measures the underemployment rate; the rate at which people are seeking employment and or employed in a field that does not fully match their job skills, education and training, and or are working part time or fall within what is characterized as “marginally attached” or “discouraged”.

Policymakers follow underemployment because it translates into underutilization of our workforce and prevents full realization of U.S. potential GDP. Measures such as the U6 help provide a more thorough snapshot of the overall employment picture.

For additional information on the survey, follow this link: <http://www.bls.gov/news.release/empsit.t15.htm>

Or, for more information, check out the 2009 Spring edition of *Region Focus*: http://www.richmondfed.org/publications/research/region_focus/2009/spring/pdf/jargon_alert.pdf

cal matter,” Wolfers says of income and happiness, “they turn out to measure the same thing.”

http://www.richmondfed.org/publications/research/region_focus/2009/summer/pdf/cover_story.pdf



A Middle to High School Activity to complement our feature article.

Want to send your students on a 5th District Data Quest? This activity, designed for secondary students (8th-12th grades), immerses students in both national and 5th district demographic data used to assess standard of living.

It is important to note that the 5th District living standard is representative of the overall U.S. living standard. The 5th district encompasses South Carolina, North Carolina, Virginia, Maryland, D.C., and parts of West Virginia.

Materials:

1. Provide copies of "Economic Trends across the Region" to each student; available on line; http://www.richmondfed.org/publications/research/region_focus/2009/summer/pdf/district_digest.pdf

[richmondfed.org/publications/research/region_focus/2009/summer/pdf/district_digest.pdf](http://www.richmondfed.org/publications/research/region_focus/2009/summer/pdf/district_digest.pdf) (Region Focus, Summer 2009, p.38-39)

2. Distribute a copy of the following questions.

5th District Data Quest Directions:

Read the article "Economic Trends across the Region," and answer the following questions using the information and data from the article.

1. Which states in the 5th District ranked above the national mark in real per capita personal income?
2. Identify the areas in the 5th District that are below the poverty line. Are the 5th District states primarily above or below the poverty line?
3. Compare and contrast the national average for each educational attainment category.
4. How do economists view educational attainment as it relates to

standard of living?

5. Summarize the life expectancy findings for the 5th District, and identify the general trends for the region.
6. Why do countries use measures such as personal income, poverty rates, educational attainment, infant mortality, and life expectancy to assess living standards?
7. Would personal income be sufficient information to determine a country, state or community's quality of life? Why or why not?

Also, check out, "Earn More, Work More: How Leisure Time Has Changed", another great read from *Region Focus*, summer 2009 edition, that provides insight into the U.S. standard of living. This one page article examines how leisure time has changed from 1900 (p.39). http://www.richmondfed.org/publications/research/region_focus/2009/summer/pdf/district_digest.pdf



Heard over the P.A.

Each issue of the 5E Educator features information on upcoming workshops, competitions, new resources from the fed and/or other topics of interest.

Staff Development Opportunities

The Fifth District offers a number of staff development opportunities for teachers. To find the workshop location nearest you, check out the following offerings opposite.

For additional workshop information and registration, follow the link: www.richmondfed.org/conferences_and_events/education/

Event	Date	Office Location
A Day @ The Fed	April 6, 2010	Richmond, VA
High School Fed Challenge (Local)	April 12-13, 2010 April 14, 2010 April 19, 2010	Baltimore, MD Charlotte, NC Richmond, VA
Economics Challenge	April 13, 2010	Charlotte, NC
The Great Debate, Part of the Night at the Fed Lecture Series	April 20, 2010	Baltimore, MD
An Afternoon at the Fed	April 21, 2010	Charlotte, NC
Globalization Workshop	April 24, 2010	Baltimore, MD
High School Fed Challenge (District)	April 27-28, 2010	Richmond, VA
Summer Institute for Charlotte Mecklenburg School Teachers	June 21, 2010	Charlotte, NC
Everyday Economics for Home School Educators	August 3, 2010	Charlotte, NC



Beyond the Textbook

Lesson Plan Ideas:

Elementary School

Potato: A Tale from the Great Depression

Reading and discussing this story about a family during the Great Depression will help students differentiate between goods, services, barter, and money. They will gain an understanding of how job loss affects a family. Students will be participating in several rounds of a barter activity that incorporates math skills. Through the activity students will learn about the difficulties of using barter to satisfy wants. Students will play the game "Hot Potato" and answer questions about consumers, goods, and services. This lesson is available online at http://www.stlouisfed.org/education_resources/lesson_plans_k-5.cfm.

Middle School

Meet Kit: An American Girl

In this lesson, students will read or listen to the story Meet Kit. Through discussion and role-playing students learn the impact unemployment and reduced consumer and business spending have on people's lives. Then using words in Handout 1: Vocabulary Word Splash they will be asked to write a newspaper article on how lives are impacted. This lesson is available online at http://www.stlouisfed.org/education_resources/lesson_plans_6-8.cfm

Grade 7-10

What is Unemployment, How Is It Measured, and Why Does the Fed Care?

This lesson, published by the Federal Reserve Bank of St. Louis, provides an opportunity for students to com-

pare and contrast different historical unemployment graphs along with Beige Book information, to make determinations about why the Fed cares about unemployment. http://www.stlouisfed.org/education_resources/assets/lesson_plans/GeoFREDUnemployment.pdf

Grade 9-12

GDP and Pizza

Courtesy of the Federal Reserve Bank of St. Louis, this free, 2 day on-line course features video clips, and pre and post assessments. The content was specifically created to provide educators with creative, expert support in teaching the GDP as a measure of economic growth. http://www.stlouisfed.org/education_resources/online_learning.cfm

Other great resources that correlate with measurement, growth of living standards and employment are the PBS series on the First Measured Century and Access, Analyze, Act: From Economic Theory to Financial Reality. PBS offers both lesson plans and videos that complement these topics, both engaging and relevant resources for your classroom. <http://www.pbs.org/teachers/access-analyze-act-economy/> and <http://www.pbs.org/fmc/>



Pep Rally

Coming Soon... A New Public Exhibit at the Federal Reserve Bank of Richmond

What does the Fed have to do with me? Designed to complement Virginia Civics and Economic curriculum, this all new interactive exhibit teaches students how their individual economic choices affect the economy, quality of life, and economic growth. By highlighting the growth of living standards over time, the importance of price stability and the Fed's role in the economy, students will leave the exhibit with a better appreciation for how their individual decisions impact the broader economy.

Scheduled to open to the general public in July 2010, teachers may begin booking group tours for the fall of 2010. Stay tuned for the launch of the exhibit web site scheduled to go live in June 2010.



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