With 16 exhibit stations and six lessons to focus student learning, the Federal Reserve Bank of Philadelphia's “Money in Motion” exhibit offers teachers, students, and the general public an interactive venue through which they can learn more about money, banking, and the Federal Reserve System. Just steps from the National Constitution Center, Independence Hall, and the Liberty Bell, the Federal Reserve Bank of Philadelphia is conveniently located to make it one of the stops on any class visit to Independence Mall.

Philadelphia, the home to the first and the second Bank of the United States, was the center of American banking and finance through much of the nation’s formative years. That’s one of the reasons the Philadelphia Fed is eager to teach students, teachers, and the general public about our nation’s financial history through the “Money in Motion” exhibit.

The following represents only a little bit of what students can learn, see, and do during a visit to the exhibit:

- Trace changes in our currency from the early 1600s to today, view money from the original 13 colonies, and examine a rare $100,000 bill.
- Learn about the Fed’s role in maintaining national financial stability, especially in the days following 9-11-01.
- Explore in-depth our country’s monetary policy over the past five decades and learn which economic indicators the Fed monitors to forecast the economic future.
- Marvel at a 25-foot tower of shredded Federal Reserve notes totaling $100 million and examine a currency cart representing $1.35 million in $5 bills.
- Delve into the world of payment and debit cards in the electronic age.

Read more in this issue of Intersections about the “Money and Motion” exhibit, the six lessons designed by economic education specialists to focus student learning in the exhibit, and how to visit the exhibit with your students.

Lessons to Accompany the “Money in Motion” Exhibit

Six lessons were developed to accompany the “Money in Motion” exhibit. The lessons help teachers focus student learning during school visits to the exhibit and provide a pedagogically sound means to teach elementary, middle, and high school students about money, banking, personal finance, and the Federal Reserve System. The lessons are available online at www.philadelphiafed.org/money_in_motion/groups.html.

Each of the six lessons includes grade-appropriate pre-visit, at-the-exhibit, and post-visit activities. In this way, each lesson guides the teacher on how to prepare students for a visit to the “Money in Motion” exhibit, provides activities for students to work on while at the exhibit, and provides activities for the teacher to use to assess what students learned at the exhibit and build on that understanding. The lessons were written using the National Council on Economic Education’s 10-point lesson model, which includes a lesson introduction, a lesson description, grade level, economic concepts taught in the lesson, a list of content.
standards covered by the lesson, student-centered learning objectives, the time required to complete the lesson, a complete list of materials, procedures for carrying out all of the activities, lesson closure, and assessment items. All visuals and activity sheets are included with each lesson. The lessons, outlined in the table below, have been designed to encourage active and collaborative learning.

—Andrew T. Hill, Ph.D.

## Lessons to Accompany the “Money in Motion” Exhibit

Available online at [www.philadelphiasefed.org/money_in_motion/groups.html](http://www.philadelphiasefed.org/money_in_motion/groups.html)

<table>
<thead>
<tr>
<th>Lesson Title</th>
<th>Grade Level</th>
<th>Subject</th>
<th>Description</th>
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| What Is Money?                   | 3-5         | Money         | • In the pre-visit activity, to experience problems with barter, students participate in a simulation in which they barter to obtain ingredients to make cookies. Repeating the simulation using money, they learn about the advantages of money.  
• At the exhibit, students work in groups to locate information to answer a set of true/false questions.  
• Back in the classroom, students learn about early money and money used today from information gathered during their visit to the exhibit. Students then participate in a play about things used for money during the colonial period. From the play, they identify the types of money used and judge each against the characteristics of “good” money. Students look for examples from the exhibit that show forms of money that meet or fail to meet those characteristics. |
| Why Money?                       | 6-8         | Money         | • In the pre-visit activity, students participate in a trading simulation to learn about barter and the benefits of using money. Working in pairs, students receive information cards on different forms of money used throughout U.S. history and identify specific problems with each.  
• At the exhibit, students complete a scavenger hunt to locate information on forms of money used in the United States, on how money is moved in and out of the Philadelphia Fed, on counterfeiting, and on the 2004 Series currency.  
• Back in the classroom, students share their answers to the scavenger hunt. They are introduced to the characteristics and functions of money and use information from their retrieval charts completed in the pre-visit activity and from the scavenger hunt to locate examples of the characteristics and functions of money. |
| What Is the Federal Reserve?     | 6-8         | Federal Reserve | • In the pre-visit activity, students participate in a simple banking simulation to learn how banks take in deposits, make loans, and hold reserves. They also examine the difficulties of check clearing without a clearinghouse and the Federal Reserve’s role in clearing checks.  
• At the exhibit, students complete four activities to learn more about the purposes and functions of the Federal Reserve, check processing, and the history of banking and finance in the United States.  
• Back in the classroom, students share their answers to the activities they completed at the exhibit, review the basic functions of the Federal Reserve System, and investigate the decisions made by bank loan officers as part of a simple role-playing activity. |
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<tr>
<th>Lesson Title</th>
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| Monetary Policy                  | 9-12        | Monetary Policy    | • In the pre-visit activity, working in groups, students develop an understanding of monetary policy. Students learn about the indicators the Fed uses to determine what changes, if any, should be made to the course of monetary policy. They participate in a card game to learn more about the vocabulary of economic indicators.  
• At the exhibit, students complete three activities to learn more about economic indicators, the tools of monetary policy, and monetary policymakers.  
• Back in the classroom, students review their answers to the three activities they completed at the exhibit, and they work in groups to develop a direction for monetary policy based on a number of economic scenarios. |
| Let’s Get Financially Focused!    | 9-12        | Personal Finance   | • In the pre-visit activity, students complete a short assessment of their knowledge of personal finance, learn concepts and terms related to personal finance by participating in a bingo game, and, working in groups, prepare a set of calculations as financial advisers for a mock client.  
• At the exhibit, students work in groups investigating different stations in the exhibit to complete a worksheet that serves as their report to their mock client.  
• Back in the classroom, students share their mock clients’ scenarios and the financial plans they have prepared for their clients. |
| What Does the Federal Reserve Do? | 9-12        | Federal Reserve    | • In the pre-visit activity, students participate in a banking simulation to learn more about the fractional reserve banking system. They learn about the three basic functions of the Federal Reserve System and reflect on the validity of a dozen statements about the Federal Reserve.  
• At the exhibit, students complete four activities and learn about the purposes and functions of the Federal Reserve, the geographical distribution of Federal Reserve offices, and the history of central banking in the United States.  
• Back in the classroom, students share their answers to the activities they completed at the exhibit, review the basic functions of the Federal Reserve System, and investigate the tools of monetary policy through a role-playing activity. |

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**Visiting the “Money in Motion” Exhibit with Your Students**

We look forward to having your students visit the “Money in Motion” exhibit during the 2006-2007 academic year. All school groups must make arrangements in advance to visit the exhibit. We strongly recommend that all teachers bringing classes to the exhibit use the lessons outlined in this newsletter and available on our website to focus student learning. School groups are required to have sufficient chaperones. Elementary school teachers interested in bringing their students to the exhibit are required to use the “What Is Money?” lesson and have a chaperone-to-student ratio of 1:5 or lower, since the chaperones will have to help the students with reading and understanding material in the exhibit. To schedule a class visit to “Money in Motion,” contact Patricia Lenar (pat.lenar@phil.frb.org) at 215-574-6257.
“Money in Motion” Exhibit

1 Welcome
Watch Ben Franklin on the $100 bill come to life and welcome you to the exhibit.

2 The Fed Family
Learn where Federal Reserve Banks and their Branches are located and what states are in the Third District. Discover the workings of the Federal Open Market Committee and the Board of Governors.

3 Monitoring Monetary Policy
Pick a decade from the 1950s through the 1990s and learn how the economy fared during that decade. Or track the four main economic indicators in each decade.

4 In & Out
Find out how money is put into and taken out of circulation. See what $1.35 million looks like in a Fed “currency cart” and marvel at a 25-foot tower of shredded money.

5 Eye on the Money
Go on a fascinating journey to see how new money and already circulating bills are put into the payment system.

6 The New Color of Money
See the latest redesigned bill and learn the security features embedded in our nation’s money. Then see if you can tell which bills on display are real and which are fake.

7A Early Money in America
See money from the original 13 colonies.

7B America’s Ever-Changing Money
Learn the history of currency in the United States while you view coins and paper notes from the Bank’s collection.

8 Moving Money at Near Light Speed
Watch the numbers change as Fedwire transfers trillions of dollars each day.

9 Then & Now
Review the history of central banking in the U.S. from 1791 to the establishment of the Federal Reserve and beyond.

10 Swipe It
Learn about payment cards and how to protect yourself from identity theft and credit card fraud. Use our debt calculator to see how long it will take to pay off your credit card debt.

11 Check It Out
Learn how one check is processed the traditional way. Then see how check conversion makes the process much faster. Finally, see the newest way to process checks.

12 Eye on Banks
Read just how the Fed supervises and regulates banks. Then test your knowledge.

13 Looking into the Economic Future
Learn about nine indicators the Fed tracks to forecast changes in the economy.

14 Change for America
Put a quarter in the machine and get the latest addition to the 50 State Quarters series.

15 Crisis Management

16 Match Wits with Ben
Think you’ve learned a lot about money and central banking from our exhibit? Test your knowledge and maybe you’ll add your name to the honor roll of champions!

“Money in Motion” Hours
To schedule a class visit to the “Money in Motion” exhibit, contact Patricia Lenar (pat.lenar@phil.frb.org) at 215-574-6257.

January and February only
Monday – Friday,
10:00 a.m. – 2:00 p.m.

March through December
Monday – Friday,
9:30 a.m. – 4:30 p.m.

Additional Summer Hours
June through August
Saturday, 10:00 a.m. – 4:00 p.m.
Sunday, noon – 4:00 p.m.
A Message from the Chairman

I am optimistic about the economic future of our nation. The prospects are excellent for continuing improvements in technology, increases in productivity, and innovations in banking and financial services—all of which bode well for our future standard of living. As we move forward, however, each and every American will face the challenge of making sound financial decisions in this extraordinarily complex economy. Sound financial decisions are critical not only to the prosperity and financial security of individuals, but also to the growth and efficiency of our overall economy.

Meeting the challenge of operating in today's economy is much easier if we have a working knowledge of how our economy functions and how it affects us. That is why economic education is such a critical component of the Federal Reserve's mission.

Economics affects every aspect of our lives. Each of us must understand how economics affects the decisions our government makes in order to participate fully in our democratic system as informed citizens and as informed voters. We must understand how economics affects the business world—especially if we choose careers in business and most especially if we take that bold step forward on our own as entrepreneurs. Ultimately, the most important reason to educate ourselves about economics and personal finance is to ensure that we make the right decisions to achieve financial security for ourselves and our loved ones.

The Federal Reserve's mission of conducting monetary policy and maintaining a stable financial system depends upon the participation and support of an educated public. Accomplishing this mission involves trade-offs and tough decisions. As the Fed pursues the monetary policy objectives that have been set out for us by Congress—to pursue price stability, maximum employment, and moderate long-term interest rates—it is essential that the public understand our objectives and our actions. Educating the public about the reasoning behind our decisions helps build confidence in our economic system—another critical factor in keeping our economy running smoothly.

No matter what your age or educational background—whether you are a student, an entrepreneur, a homemaker, or a professor—the Fed has resources to help you learn more about economics and to help you participate in the important national conversations we must have about these issues. In the end, I believe you will find that economic education is one of the best investments you can make for your own future and for the future of your family, your community, and our nation.

Ben S. Bernanke
Chairman
Board of Governors of the Federal Reserve System
Washington, D.C.
### Economics in Action: Greatest Hits for Teaching High School Economics

**Registration Deadline:** October 11, 2006

**What:** This three-evening professional development program introduces educators to a series of simulations, role-playing activities, group activities, and classroom demonstrations designed to effectively teach high school students about economic concepts. Taught by Federal Reserve economic education specialists, this program emphasizes active- and collaborative-learning teaching methodologies that help high school educators meet state and national standards in social studies and economics.

**Prerequisites & Requirements** There are no prerequisites for this program. Open to grades 7-12 educators.

**Cost:** There is a $25 registration fee payable by credit card at time of registration. Your registration fee includes dinner at each session and a copy of the National Council on Economic Education's *Economics in Action: 14 Greatest Hits for Teaching High School Economics* lesson book. We accept MasterCard, Visa, and American Express. The registration fee is nonrefundable after the registration deadline.

**Credit:** Upon completion of all three sessions, teachers from Pennsylvania, New Jersey, and Delaware will receive seven professional development hours in their respective states.

**Register Online:** [www.philadelphiafed.org/education](http://www.philadelphiafed.org/education) *(Note: Registration is online only.)*

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<tr>
<td>October 17, 2006 • 4:30 p.m. – 7:30 p.m.</td>
<td>Federal Reserve Bank of Philadelphia 7th and Arch Streets Philadelphia, PA 19106</td>
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<td>November 1, 2006 • 4:30 p.m. – 7:30 p.m.</td>
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<tr>
<td>November 15, 2006 • 4:30 p.m. – 7:30 p.m.</td>
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### 9th Annual Hot Topics in Economics

**Registration Deadline:** October 18, 2006

**What:** This one-evening professional development program, co-sponsored by the Temple University Center for Economic Education and the Federal Reserve Bank of Philadelphia, introduces teachers to timely topics in economics and personal finance during three 45-minute presentations from Federal Reserve economists, economic education specialists, and outside speakers.

**Prerequisites & Requirements** There are no prerequisites for this program. Open to grades K-12 educators.

**Cost:** There is a $10 registration fee payable by credit card at time of registration. Your registration fee includes dinner and all program materials. We accept MasterCard, Visa, and American Express. Registration fee is nonrefundable after the registration deadline.

**Credit:** Upon completion of the program, teachers from Pennsylvania, New Jersey, and Delaware will receive 2.5 professional development hours in their respective states.

**Register Online:** [www.philadelphiafed.org/education](http://www.philadelphiafed.org/education) *(Note: Registration is online only.)*

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<tr>
<td>October 25, 2006 4:00 p.m. – 8:00 p.m.</td>
<td>Federal Reserve Bank of Philadelphia 7th and Arch Streets • Philadelphia, PA 19106</td>
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### Making Sense of Money and Banking: A Course for Educators

**Save the date!**


**For more information about all of these programs, contact:**

Dr. Andrew T. Hill, Economic Education Advisor, Federal Reserve Bank of Philadelphia • andrew.hill@phil.frb.org
### The Resource Rack

*The Federal Reserve System has many publications and online resources available for classroom use. Most are available in classroom sets for free.*

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Published by</th>
<th>Order at</th>
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<tbody>
<tr>
<td>Closed for the Holiday</td>
<td>Recaps events leading to the collapse of American banking in March 1933 and describes federal efforts to restore public confidence.</td>
<td>Federal Reserve Bank of Boston</td>
<td><a href="http://www.newyorkfed.org/publications">www.newyorkfed.org/publications</a></td>
</tr>
<tr>
<td>Panic of 1907</td>
<td>Tells how the banking panic of 1907 developed, spread, and was resolved. A chronology is included, along with a section of newspaper excerpts.</td>
<td>Federal Reserve Bank of Boston</td>
<td><a href="http://www.newyorkfed.org/publications">www.newyorkfed.org/publications</a></td>
</tr>
<tr>
<td>The Story of the Federal Reserve System</td>
<td>Describes the major functions of the Federal Reserve System, the tools of monetary policy and how they work, and other ways the Fed helps the U.S. economic and financial system to function effectively.</td>
<td>Federal Reserve Bank of New York</td>
<td><a href="http://www.newyorkfed.org/publications">www.newyorkfed.org/publications</a></td>
</tr>
<tr>
<td>A Christmas Present for the President</td>
<td>Presents a short history of the creation of the Federal Reserve System. Excerpts from reminiscences, letters, and newspapers of the time give an inside look at the diverse forces and personalities brought together in the formation of the nation’s central bank.</td>
<td>Federal Reserve Bank of St. Louis</td>
<td><a href="http://www.newyorkfed.org/publications">www.newyorkfed.org/publications</a></td>
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<td>FederalReserveEducation.org</td>
<td>FederalReserveEducation.org is the Federal Reserve System’s portal to economic and personal financial education materials on the web. From the portal, teachers and students can link to print and online resources offered by the 12 Reserve Banks and the Board of Governors.</td>
<td><a href="http://www.federalreserveeducation.org">www.federalreserveeducation.org</a></td>
<td><a href="http://www.federalreserveeducation.org">www.federalreserveeducation.org</a></td>
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Interested in teaching high school students about personal finance?

“Keys to Financial Success,” a comprehensive high school personal financial education program promoted by the Federal Reserve Bank of Philadelphia, provides teachers with the training, lessons, and materials necessary to teach students how to be financially savvy. The “Keys” course includes five units: Setting Financial Goals and the Decision Making Process; Career Planning—Investments in Human Capital; Money Management, including credit use; Consumer Skills; and Risk Protection. Schools that commit to offering the course receive extensive materials to teach the course, a one-week summer training program for “Keys” teachers, and pre- and post-testing of “Keys” students. If your school is looking to expand its course offerings or update an existing personal finance course, “Keys” could be a perfect fit for your school’s current curriculum. Interested schools should contact Todd Zartman (todd.zartman@phil.frb.org), economic education specialist, at 215-574-6457.