

# Work, Education, and Income: Economics and Financial Literacy in the Early Grades

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The primary grade teachers at an elementary school in Wilmington, Delaware, found that their students did not understand where their spending money comes from. When they began a lesson on income by posing the question, “How do you get money?” students eagerly responded that people give it to them as gifts or because they asked for it. However, they had much more difficulty answering the question, “Where do most adults get this money to give you?” The teachers posed the compelling question for the lesson, “How do most people earn income?”

Six times during the year these teachers worked with the authors as part of their professional learning communities on a project to infuse economics and personal finance into

their existing curriculum. Students at the school have limited experiences outside their local neighborhood. The teachers felt that their students lacked an understanding that income, for most people, is earned in exchange for the work that they do and that income can be paid to workers in different forms. Teachers were also concerned that their students did not know that different jobs require workers to have different education and skills and, in general, more education leads to higher paying jobs. The lessons shared in this article are a sampling of those used by teachers in grades K-5 to address these concerns.

Teaching young people in the 21st century about the fundamental role that workers play in our economy is essential to ensuring that our students become economically and financially literate citizens. Together, the *National Standards for*

## Sidebar A: Standards Addressed in these Activities

Career, College and Civic Life (C3) Standards for Social Studies State Standards
D.2.Eco.6.K-2: Explain how people earn income.
D.2.Eco.6.3-5: Explain the relationship between investment in human capital, productivity, and future incomes.
National Standards for Financial Literacy
<b>Standard 1:</b> Income for most people is determined by the market value of their labor, paid as wages and salaries. People can increase their income and job opportunities by choosing to acquire more education, work experience, and job skills. The decision to undertake an activity that increases income or job opportunities is affected by the expected benefits and costs of such an activity. Income also is obtained from other sources such as interest, rents, capital gains, dividends, and profits.
At the completion of Grade 4, students will know that:
Benchmark 1: People have many different types of jobs from which to choose. Different jobs require people to have different skills.
Benchmark 2: People earn an income when they are hired by an employer to work at a job.
Benchmark 3: Workers are paid for their labor in different ways such as wages, salaries, or commissions.
Benchmark 6: People who own a business can earn a profit, which is a source of income.
Voluntary National Content Standards in Economics
<b>Standard 1:</b> Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.
At the completion of Grade 4, students will know that:
Benchmark 8: Human resources are the people who do the mental and physical work to produce goods and services.
Benchmark 10: Human capital refers to the quality of labor resources, which can be improved through investments in education, training, and health.
<b>Standard 13:</b> Income for most people is determined by the market value of the productive resources they sell. What workers earn primarily depends on the market value of what they produce.
At the completion of Grade 4, students will know that:
Benchmark 2: People can earn income by exchanging the use of their labor (physical or mental work) for wages or salaries.

*Financial Literacy*,<sup>1</sup> the *Voluntary National Content Standards in Economics*,<sup>2</sup> and the *College, Career, and Civic Life (C3) Framework*<sup>3</sup> provide an excellent structure for teaching young learners about labor, income, and human capital. Financial literacy Standard 1 and its associated benchmarks (**SIDEBAR A**) specify that, by the end of Grade 4, students should know about different jobs and the skills required for those jobs, that income is earned when people work, that there are different ways in which workers can be paid, and that business owners earn profits. These knowledge outcomes are echoed in the associated economics Standard 13, Grade 4 Benchmark 2. Economics Standard 1 calls on elementary educators to teach students that the production of goods and services requires labor (human resources), and that the productivity of workers can be increased through education, training, and improvements to workers' health (investments in human capital). The C3 Framework also indicates students should be able to explain how people earn income and the relationship between investment in human capital, productivity, and future income.

To introduce ways people receive money either by earning income from work they do or receiving gifts, students brainstormed a list of people who work at the school, in their families, and in the larger community. When asked why these people work, the overwhelming response was: "to make money." The teachers also pointed out other reasons people work, such as job satisfaction, helping others, and fulfilling one's personal goals, but acknowledged that the students were correct. Most people work to earn money called income.

"Income," money received for work performed, was a new vocabulary word. Teachers pointed out that they earn income from teaching. Then, they asked students what a dog walker, a waiter, a postal carrier, and a professional soccer player do to earn income. Teachers asked students to provide additional examples of workers and what they do to earn income. Students gave examples of individuals with whom they interacted on a daily basis, such as the various specialists at the school, police officers, and crossing guards. When asked, few students could give examples of when they received money for work. Using **HANDOUT 1**, students wrote the definition of income. (Handouts 1–4 comprise the **PULLOUT** immediately following this article).

Working in groups, students discussed past experiences receiving money as gifts and earning money as income. Using strips of paper in two colors (one color representing gift money, and the other, income), students drew pictures or wrote examples on the appropriate strips. They folded and taped like-colored strips into paper chains. Groups combined their chains and hung them on the bulletin board under the appropriate headings, "Earned Income" or "Gift Money."<sup>4</sup> This graphic helped students easily see that most of their classmates received money as gifts. When asked to predict how the chains might look if their parents or other adults did the same activity, the responses varied, but most students thought that the "Earned Income" chain would be longer for the adults.




To determine if their prediction was correct, for homework, students asked at least one person, who worked outside of the home, how he or she receives most of his or her money—from gifts or from work. The students interviewed various adults at school, teenagers with part-time jobs, and parents who worked outside the home.

When students entered the classroom the next day, the teachers had prepared more strips of paper in the two colors used the previous day. Students selected a strip of colored paper that reflected what they had learned from the adults whom they interviewed for homework. All of the like-colored strips were made into chains and hung next to the students' paper chains. The teacher reminded students of their prediction and asked if the data (reflected in the paper chains) they collected supported their prediction. This large-scale graph, the two sets of chains, made it easy for students to determine that most adults earn their money as income paid in exchange for the work that they do.

To conclude the lesson, teachers referred back to the list of workers that the class had generated and pointed out that all of these people receive money called "income" for their work. Students completed **HANDOUT 1** by writing a sentence using income and drawing a picture of someone earning income or receiving income for his or her work.

## Income

Definition	Sentence	Picture
Passing money for doing a job.	I earn income by cleaning the whole house.	

When we worked with older students in the fifth grade, it was clear that they realized that adults receive money as earned income, but the fifth graders did not always know that workers are paid for their labor in different ways. We asked these students to investigate the question, “What are the different forms of income that workers earn?” To introduce the different types of earned income, teachers shared the definitions below, gave some examples for each, and asked students to generate additional examples.<sup>5</sup>

**Wages:** Payments for labor services that are directly tied to time worked, or to the number of units of output produced. (Example: Most workers at fast food restaurants are paid wages.)

**Salary:** A regular payment, often at monthly or biweekly intervals, made by an employer to an employee. Salaries are paid for services rendered and are not based on hours worked. (Example: Teachers are paid salaries.)

**Profit:** Income received for entrepreneurial skills and risk taking, calculated by subtracting total costs from total revenue. (Example: The owner of a plumbing business earns profit.)

**Commissions:** A sum of money paid to an employee upon completion of a task, usually selling a certain amount of goods or services. (Example: Realtors are paid commissions when they help people buy or sell houses.)

The students found it difficult to come up with their own examples for each income type. To reinforce this vocabulary, half of the class received a card with a type of payment for labor written on it. The other half of the class received cards with a description of an individual worker and the form of income he or she earns. Each student had to find another student whose card was a match for the information on their cards. (See the sample cards in **HANDOUT 2**.) Once all matches were made, the pairs shared the information on both of their cards, and the class determined whether the match was correct.

For homework, students shared the four ways that workers are paid for their labor with a parent who worked outside of the home or another working adult. They asked those adults how they were paid. Students used the script below when conducting the survey.

Script: “Today in class we learned that people earn income for the work they do. They are paid for their work in different ways. We learned about wages, salary, profit, and commissions. Which way are you paid?”

Teachers created the following chart on the board.

Ways Adults in Our Community Are Paid			
Wage	Salary	Profit	Commission

As students walked into the classroom the following day, they put check marks, reflecting the results of their interviews, under the appropriate heading. Using the student-generated data, the teachers posed the following questions.

- How are most of the adults in our survey paid?
- Which way are the fewest workers paid?
- Are there more or fewer workers paid by commission than by wages? Are there more or fewer workers paid by salary than by wages?
- Based on the data you collected, what generalization can you make about how the workers you surveyed are paid?
- Which way would you like to be paid? (The overwhelming response was salary.)

After the children understood the connection between work and income, the teachers posed the compelling question, “What are the education and skills required by different jobs and careers?” To learn about jobs and careers, teachers used a combination of children’s books and visits from outside speakers to guide students in producing their own career guidebook.

Many children’s books look at jobs or careers and the tools that workers use. For primary children, *Career Day* by Anne Rockwell, *Whose Tools Are These?* by Sharon Katz Cooper, and *What Do People Do All Day?* by Richard Scarry set the stage for more discussion about the different careers and jobs done by people in the community. Other children’s books provide an opportunity to show students that young people also earn income and even young workers must have certain skills to do different jobs well. These books include *Slugger’s Car Wash* and *Lemonade for Sale* by Stuart Murphy and *Isabel’s Car Wash* by Sheila Bair. Each book features a story about children who need money to solve a problem. Without guidance from adults, the characters in the book decide how to earn income to repair a clubhouse, buy new T-shirts for their team, or purchase a new toy.

Although these books do not explicitly state the skills and education needed for different jobs, students could infer from the pictures and the text the skills and the types of education needed for particular jobs or careers. For example, from *Career*

Day, students stated that Kate’s dad, who played bass in an orchestra, needed to practice and take lessons from a music teacher and that Professor Alcorn went to college. Students felt that reading was important for both the postmaster and the bakers (who had to know how to measure ingredients correctly) in *What Do People Do All Day?*

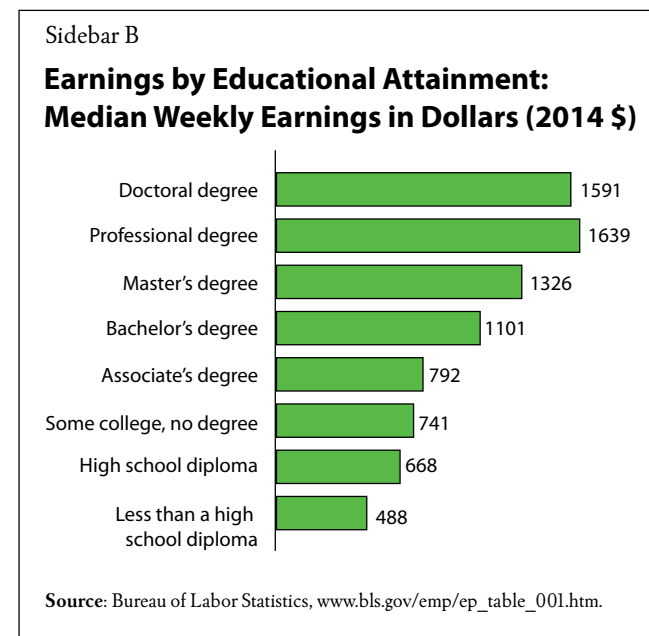
Speakers from the community can be especially valuable in bringing outside perspectives and knowledge into the classroom in any elementary grade. From their own experience, speakers can describe different jobs and careers and the skills and education needed to do them. In preparation for a classroom visit from a guest speaker, teachers reminded students that the purpose of the visit was to learn about the speaker’s career, what tools he or she used on the job, and what skills and training he or she needed to do his or her job well. Students then prepared a set of questions to ask the guest. When students questioned the owner of the barbershop across from their school, they learned how he trained to be a barber and what tools he uses. The barber also shared that he was an entrepreneur, and, the first few years that his business was open, he didn’t earn a profit.

After exploring careers in books and from guest speakers, the second grade students selected a career and used **HANDOUT 3** to draw a picture of their chosen career with the tools they would use, and wrote one or two sentences about the skills they would need to do their job. Their pages were turned into a class book, “Our Career Guidebook.” A copy was made for the school library.

In the fourth and fifth grades, teachers asked, “Why do some jobs pay more than others?” Student answers included how physically demanding the job was, the shift worked (with the night shift earning more than the day shift), the length of time worked each day, and the payment received, such as a salary versus a commission. None of the students indicated that they understood that higher paying jobs require more skills and knowledge.<sup>6</sup>

To more thoroughly answer the question, teachers discussed a graph “Earnings by Educational Attainment” (**SIDEBAR B**) with students.<sup>7</sup> Other teachers led an activity in which eight students each wore a sign with an education level and its brief description. Each of the students was also given a card that showed the median weekly income associated with the education level that they represented. They were told not to reveal the median weekly income data to the rest of the class. The eight students lined up in random order. Using the educational attainment levels displayed on the signs, the class arranged the eight students from those they thought would earn the lowest income to those they thought would earn the highest. Not all of the students agreed on the order. They disagreed particularly about which group would earn more when certain comparisons were made: (e.g., people with some college courses but no degree versus people with associate’s degrees; people with a professional degree versus people with a doctorate). Finally, the eight students wearing the signs also revealed their cards, showing the median weekly incomes for their educational attainment

levels. As needed, the eight students rearranged themselves from lowest to highest median weekly income.



At the end of this activity, the teacher showed the class the graph that was the source of the data. Students felt that the graph was easy to read, but liked the card activity better. When asked why, they said, “It was more interactive. It made us think. The graph just gave us the information.” Teachers also asked:

- What generalization can you draw from the data on earnings and educational attainment provided in either the graph in Figure 1 or the signs worn by the eight students?
- What recommendation would you make to someone who is about to graduate from high school and has no plans to get any additional training or education?

The Bureau of Labor Statics (BLS) has a rich website appropriate for fourth and fifth grade students providing information on a wide variety of careers ([www.bls.gov/k12/content/students/careers/career-exploration.htm](http://www.bls.gov/k12/content/students/careers/career-exploration.htm)). Teachers first demonstrated how to navigate the site by selecting a career from one of the categories, reviewing the Quick Facts section, and pointing out and explaining median pay, number of jobs, job outlook, and employment change. Working in pairs, students selected a career to research using **HANDOUT 4** as a guide. To share their findings, student pairs created and displayed a poster that included the information from the handout.

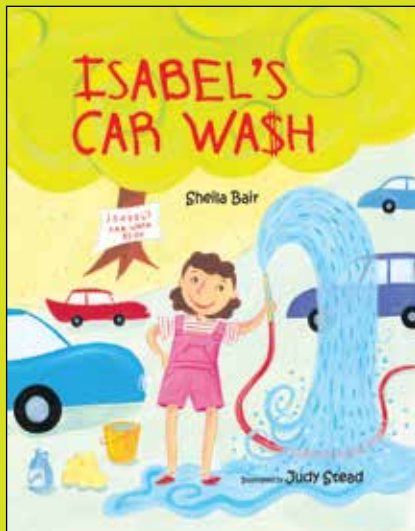
During a gallery walk, students explored the different careers highlighted on the posters. As student pairs circulated the room, they searched for answers to the following questions.

- Which career was the most interesting? Why?
- Which career had a high growth in jobs created? Which had a declining growth in jobs created?

- Which career paid the highest median salary or wage?
- Do you think some people choose a career knowing that they might earn more if they had chosen a different career? Why would they do this?
- Does the information displayed support your prediction about the relationship between the education and training required and income provided by different careers? Explain.

In discussion, students shared their answers and concluded that, of the careers that they chose to research, those that required more education earned more income.

## CHILDREN'S BOOKS CITED



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Cooper, Sharon Katz. *Whose Tools Are These?* New York: Picture Window Books, 2006.

Murphy, Stuart. *Slugger's Car Wash*. New York: HarperCollins, 2002.

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Rockwell, Anne. *Career Day*. New York: HarperCollins, 2000.

Scarry, Richard. *What Do People Do All Day?* New York: Golden Books, 2015.

## Conclusion

In the elementary grades, children should attain a foundational understanding of economics and personal finance. At the core of this understanding is the relationship between work and income. Widening income inequality in the United States is largely attributable to differences in educational attainment. Moreover, the alarmingly large high school dropout rate, particularly in rural and inner-city schools, reflects, in part, young people's misunderstanding of the direct relationship between education and income. We know from long-established research findings that young people develop their understandings of money and other economic concepts from an early age.<sup>8</sup> One likely way to increase economic and financial literacy in the next generation is to teach about the interplay of work, education, and income from the primary grades onward. ●

## Notes

1. Council for Economic Education, *National Standards for Financial Literacy* (New York: CEE, 2013) [www.councilforeconed.org/resource/national-standards-for-financial-literacy](http://www.councilforeconed.org/resource/national-standards-for-financial-literacy).
2. Council for Economic Education, *Voluntary National Content Standards in Economics* (New York: CEE, 2010), [www.councilforeconed.org/resource/voluntary-national-content-standards-in-economics](http://www.councilforeconed.org/resource/voluntary-national-content-standards-in-economics).
3. National Council for the Social Studies. *Career, College and Civic Life (C3) Standards for Social Studies State Standards: Guidance for Enhancing the Rigor of K-12 Civics, Economics, Geography, and History* (Silver Springs, MD: NCSS, 2013).
4. Adapted from Council on Economic Education, *Financial Fitness for Life, Grades K-2* (New York: Council for Economic Education, 2010).
5. Source of definition for "wage," "salary," and "profit": Council for Economic Education, "Economic Glossary," EconEdLink, [www.econedlink.org/economic-resources/glossary.php](http://www.econedlink.org/economic-resources/glossary.php); Source for definition for "commission": U.S. Department of Labor, [www.dol.gov/dol/topic/wages/commissions.htm](http://www.dol.gov/dol/topic/wages/commissions.htm).
6. Students did not raise the issue of gender bias as a possible cause of pay differentials. Because there are a number of factors involved in explaining gender bias, we see this issue as requiring an entirely different lesson and did not make it part of the topic in this lesson. For teachers who wish to pursue this topic, we recommend using the graph cited in note 7.
7. Bureau of Labor Statistics, "Median Weekly Earnings by Educational Attainment in 2014," U.S. Department of Labor (January 23, 2015), [www.bls.gov/opub/ted/2015/median-weekly-earnings-by-education-gender-race-and-ethnicity-in-2014.htm](http://www.bls.gov/opub/ted/2015/median-weekly-earnings-by-education-gender-race-and-ethnicity-in-2014.htm).
8. Mark Schug, "How Children Learn Economics," *International Journal of Social Education* 8, no. 3 (Winter 1993–94): 25–34; Mark Schug and William Walstad, "Teaching and Learning Economics," in *Handbook of Research on Social Studies Teaching and Learning*, J. P. Shaver, ed., (New York: MacMillan, 1991), 411–19.

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