

20271 Public Economics

Lecture 8-9

Peltzman model (based on Gruber's book)

Free Public Education and Crowding Out

- Peltzman (1973) argued that it is possible that providing public education could *lower* the educational attainment in society.
- In Peltzman's model some parents choose lower-quality public schools over higher-quality private schools in order to take advantage of the free education entitlement.

Free Public Education and Crowding Out

- The key insight of Peltzman's model is that the typical provision of public education takes the form of an in-kind benefit and it creates a budget constraint with potentially perverse incentives.
- In order to consume higher quality private schooling, the consumer must forgo the entitlement to free public education.
- **Figure 1** illustrates this.

Other goods spending

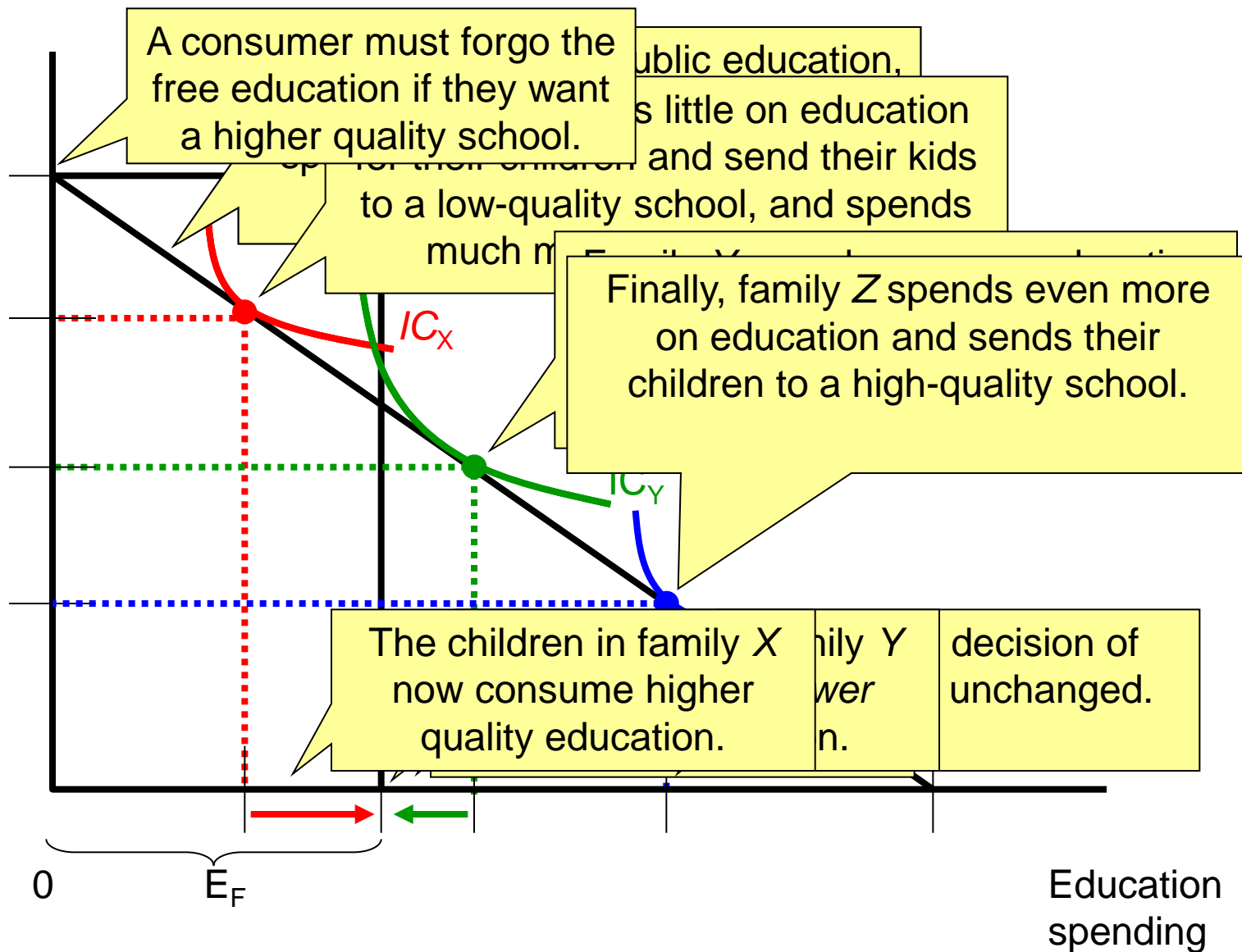


Figure 1 Effects of free public education

Free Public Education and Crowding Out

- On net, public educational spending could crowd out private spending on education as individuals reduce their own spending in response to this free public option.
- Moreover, if enough families were like family *Y* in figure 1, then total educational quality could actually fall rather than rise.

Solving the Crowd-Out Problem: Vouchers

- *Educational vouchers* give parents a credit that can be used toward the cost of tuition at any school, public or private.
- Imagine a voucher of E_F dollars that could be used for “free” public school, or for more expensive private schooling.
- **Figure 2** illustrates this.

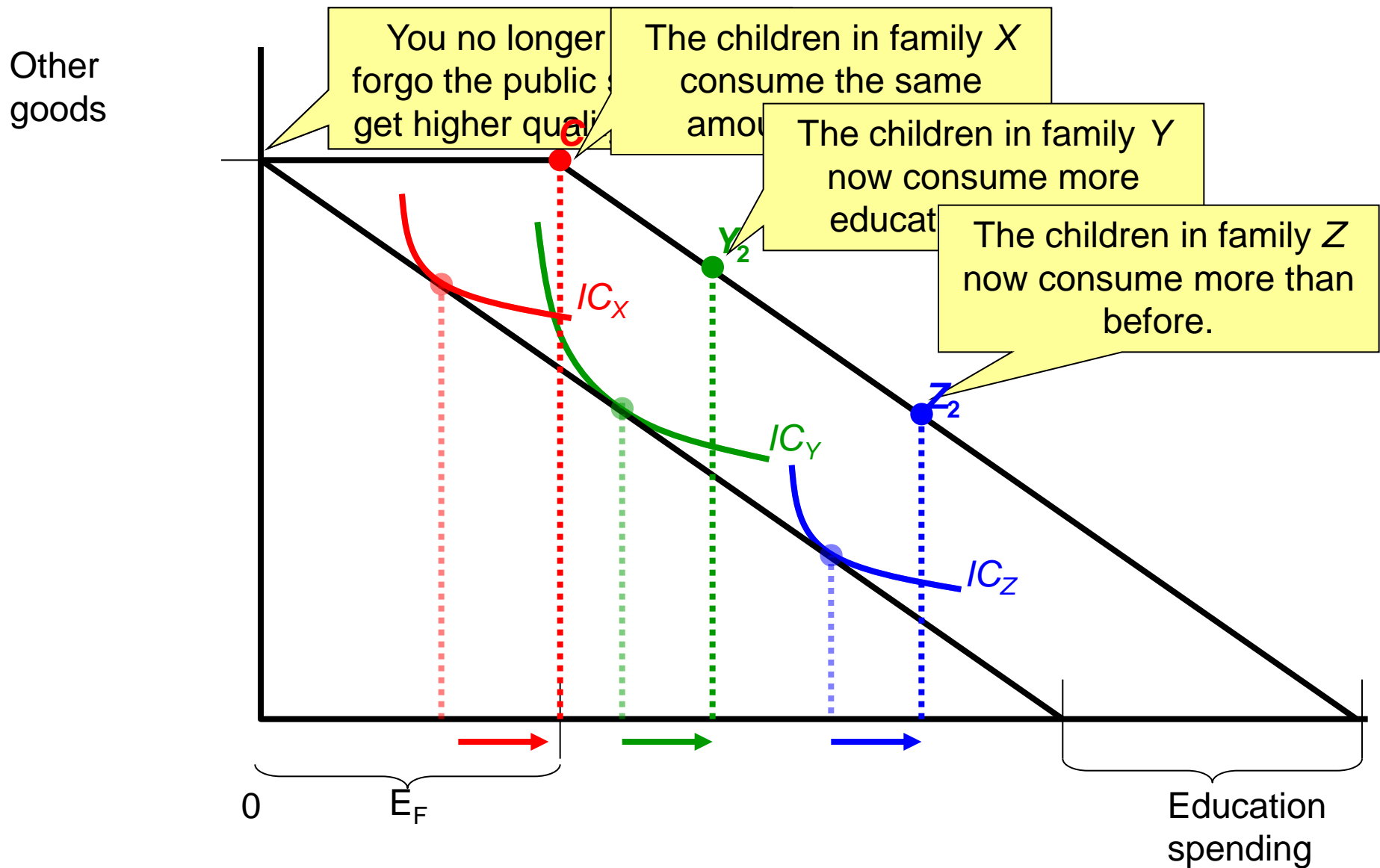


Figure 2 Effects of a voucher for $\$E_F$

Solving the Crowd-Out Problem: Vouchers

- The type of analysis shown in **Figure 2** motivates support for a voucher system. The arguments made in favor of vouchers are:
 - Consumer sovereignty: they allow individuals to match their educational choices with their tastes.
 - Competition: competitive pressures will allow the education market to work more efficiently
 - In theory, vouchers put discipline on public schools by making private schools a more realistic option.
 - Inefficient schools will be driven out of the education market, just as competition forces out inefficient firms.
 - In principle, there is already some degree of competitive pressure through the Tiebout mechanism.

Problems with Educational Vouchers

- They may lead to excessive specialization.
- They could lead to stratification or segregation.
- They may be poorly targeted: inequitable use of public resources
- The education market may not be competitive.
- They do not account well for high cost students.

Excessive specialization

- As schools try to specialize and attract customers, the benefits of a common program will be undercut.
- In principle, “football schools” or “art schools” could emerge to attract particular market segments. These schools could give less attention to what are viewed as the central elements of education.
- BUT: Accreditation and testing could ameliorate this problem.

Segregation

- Children of disinterested or uninformed parents end up in low-quality public schools, while children of motivated parents end up in higher quality private schools.
- On the other hand, vouchers allow motivated students to end the segregation imposed by location.

Use of public resources

- Another potential problem with vouchers is they are inequitable. In **Figure 2**, family Z used the voucher, yet education attainment rose only modestly.
- For families like family Z, who don't change their educational attainment by much, the voucher is basically the same as a cash transfer.

Competition

- Another problem is that the education market might be described as a *natural monopoly*. This is because there are fixed costs (such as the building) and economies of scale.
- In such a case, it is not efficient to have many small schools competing with each other.

Special students

- Some students are more costly to educate.
- Special education students, for example, cost more than twice as much as the average student.
- Unless a voucher was commensurate with the cost of a student, schools have an incentive to cream-skim and avoid these costly students.

Estimating the effects of voucher programs

- Small-scale voucher program in Milwaukee.
- Starting in 1990, the state of Wisconsin allowed near-poor families in Milwaukee to apply for a voucher for any nonsectarian private school.

Estimating the effects of voucher programs

- Rouse (1998) notes that oversubscribed private schools had to select voucher applicants randomly, using a lottery.
- The “treatment group” are students who applied to an oversubscribed school and were randomly accepted into it; the “control group” are applicants who were randomly rejected.
- The results suggest that the treatment group saw an increase in academic performance, with a rise in test scores of 1-2% per year relative to the control group.

Estimating the effects of voucher programs

- Angrist, et al. (2003) studied a Columbian voucher program that paid for somewhat more than half of the costs of private secondary school.
 - The vouchers were distributed by lottery, an ideal empirical approach.
- The authors found that students who won vouchers were 10% more likely to finish 8th grade, primarily because they did not repeat as many grades. They also had higher test scores.
- Cost of the vouchers much smaller than benefits.

Experience with Public School Choice

- Cullen, Jacob and Levitt (2003) examine school choice in Chicago, which also used a lottery to determine admission to oversubscribed schools.
- Unlike vouchers for private schools, going to a more selective public school did not influence academic outcomes.

Experience with Public School Incentives

- While there is limited U.S. experience with vouchers and school choice, there is a much larger experience with *school accountability*.
- As of 2002,
 - 25 states explicitly linked student promotion to performance on state or local assessment tests.
 - 18 states rewarded teachers and administrators on the basis of successful student exam performance.
 - 20 states penalized teachers and administrators for sub-par performance.

Experience with Public School Incentives

- This approach was codified into law with the *No Child Left Behind Act of 2001*.
- There is some evidence that strong measures of accountability had the intended effect of raising test scores.

Experience with Public School Incentives

- On the other hand, this sort of accountability had two unintended effects:
 - Schools and teachers “teach to the test.”
 - Schools may try to manipulate test scores for instance, by reclassifying low-skilled students as special-education.