

**Activity One – Education and Growth**

Considering the Data and the Graphs Below

- 1) Using the growth model illustrated in the lecture, what is the linkage between education and economic growth?
- 2) In the light of your analysis, evaluate the growth effect of a policy of free higher education in South Africa.

**Comparing Cognitive Skills** (Figure 2)

*For the first time, all international tests administered between 1964 and 2003 have been placed on a common scale, allowing readers to identify changes in test performances over time. Notice that students in the United States, Germany and Hungary have slipped, while students in the Netherlands and Finland have improved.*

1960s-1970s	1980s	1990s	2000s		
<p><b>500s</b></p> <ul style="list-style-type: none"> <li>Israel</li> <li>New Zealand</li> <li>Japan</li> <li>France</li> <li>Belgium</li> <li>Hungary</li> <li>Germany</li> <li>Australia</li> <li>Finland</li> <li>United Kingdom</li> <li>Sweden</li> <li>Netherlands</li> </ul>	<ul style="list-style-type: none"> <li>Japan</li> <li>Netherlands</li> <li>Korea, Rep.</li> <li>Hungary</li> <li>Hong Kong</li> </ul>	<ul style="list-style-type: none"> <li>Taiwan</li> <li>Korea, Rep.</li> <li>Japan</li> <li>Singapore</li> <li>Finland</li> <li>Slovak Rep.</li> <li>Czech Rep.</li> <li>Australia</li> <li>Slovenia</li> <li>Hong Kong</li> <li>Bulgaria</li> <li>Austria</li> <li>Russian Fed.</li> <li>Netherlands</li> <li>Hungary</li> <li>Sweden</li> <li>United Kingdom</li> <li>Belgium</li> <li>Canada</li> </ul>	<ul style="list-style-type: none"> <li>Finland</li> <li>Korea, Rep.</li> <li>Taiwan</li> <li>Japan</li> <li>Hong Kong</li> <li>Estonia</li> <li>Singapore</li> <li>Macao-China</li> <li>Canada</li> <li>Australia</li> <li>Netherlands</li> <li>Ireland</li> <li>Liechtenstein</li> <li>Switzerland</li> <li>Sweden</li> <li>New Zealand</li> <li>United Kingdom</li> <li>Belgium</li> <li>Austria</li> <li>Czech Rep.</li> <li>France</li> </ul>		
<p><b>400s</b></p> <ul style="list-style-type: none"> <li>Italy</li> <li>United States</li> <li>Thailand</li> <li>Chile</li> <li>India</li> <li>Iran</li> </ul>	<ul style="list-style-type: none"> <li>Finland</li> <li>France</li> <li>Norway</li> <li>Sweden</li> <li>Australia</li> <li>Poland</li> <li>Belgium</li> <li>United Kingdom</li> <li>Singapore</li> <li>Canada</li> <li>New Zealand</li> <li>Italy</li> <li>Israel</li> <li>United States</li> <li>Thailand</li> <li>Luxembourg</li> <li>Swaziland</li> <li>Nigeria</li> <li>Philippines</li> </ul>	<ul style="list-style-type: none"> <li>Switzerland</li> <li>United States</li> <li>France</li> <li>New Zealand</li> <li>Germany</li> <li>Norway</li> <li>Ireland</li> <li>Italy</li> <li>Iceland</li> <li>Yugoslavia</li> <li>Malaysia</li> <li>Denmark</li> <li>Latvia</li> <li>Spain</li> <li>Greece</li> <li>Lithuania</li> <li>Thailand</li> <li>Portugal</li> <li>Israel</li> </ul>	<ul style="list-style-type: none"> <li>Romania</li> <li>Cyprus</li> <li>Trinidad&amp;Tobago</li> <li>Moldova</li> <li>Macedonia</li> <li>Iran</li> <li>Colombia</li> <li>Jordan</li> <li>Nigeria</li> <li>Venezuela</li> <li>Kuwait</li> <li>Tunisia</li> </ul>	<ul style="list-style-type: none"> <li>Lithuania</li> <li>Hungary</li> <li>United States</li> <li>Iceland</li> <li>Germany</li> <li>Denmark</li> <li>Slovak Rep.</li> <li>Malaysia</li> <li>Latvia</li> <li>Poland</li> <li>Spain</li> <li>Italy</li> <li>Norway</li> <li>Russian Fed.</li> <li>Slovenia</li> <li>Greece</li> <li>Bulgaria</li> <li>Romania</li> <li>Portugal</li> </ul>	<ul style="list-style-type: none"> <li>Moldova</li> <li>Luxembourg</li> <li>Israel</li> <li>Cyprus</li> <li>Armenia</li> <li>Serbia</li> <li>Jordan</li> <li>Turkey</li> <li>Uruguay</li> <li>Thailand</li> <li>Macedonia</li> <li>Colombia</li> <li>Iran</li> <li>Bahrain</li> <li>Argentina</li> <li>Palestine</li> <li>Mexico</li> <li>Egypt</li> </ul>
<p><b>300s</b></p> <ul style="list-style-type: none"> <li>Malawi</li> </ul>		<ul style="list-style-type: none"> <li>Turkey</li> <li>Indonesia</li> <li>Zimbabwe</li> <li>Chile</li> <li>Botswana</li> <li>Philippines</li> </ul>	<ul style="list-style-type: none"> <li>Chile</li> <li>Lebanon</li> <li>Kuwait</li> <li>Indonesia</li> <li>Brazil</li> <li>Tunisia</li> <li>Albania</li> </ul>	<ul style="list-style-type: none"> <li>Philippines</li> <li>Saudi Arabia</li> <li>Morocco</li> <li>Botswana</li> <li>Belize</li> <li>Peru</li> </ul>	
<p><b>200s</b></p>		<ul style="list-style-type: none"> <li>South Africa</li> <li>Morocco</li> </ul>	<ul style="list-style-type: none"> <li>Ghana</li> <li>South Africa</li> </ul>		

Note: Countries are ordered by average test score received in one or more tests in reading, math, and science within the indicated decades. Countries with higher scores within a category appear in the left-hand column.

SOURCE: Authors

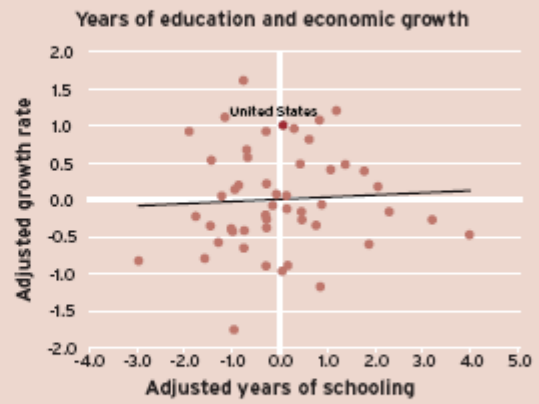
## Explaining Economic Growth (Figure 3)

*How much students learn, not how long they stay in school, is the key to economic growth. The United States, however, has had a higher growth rate during this period than would be expected given its test scores and levels of school attainment.*



Note: The y-axis indicates growth rates from 1960 and 2000, adjusted for GDP in 1960 and school attainment. The x-axis shows test scores adjusted for school attainment. The solid line plots the relationship between the two variables among the 50 countries with available test score information, each of which is represented by a dot.

SOURCE: Authors



The y-axis indicates growth rates from 1960 and 2000, adjusted for GDP in 1960 and test scores. The x-axis shows school attainment adjusted for test scores. The solid line plots the relationship between the two variables among the 50 countries with available test score information, each of which is represented by a dot.