



Upper secondary completion: An OECD overview

International Workshop: Taking Stock of
Progress in Overcoming School Failure



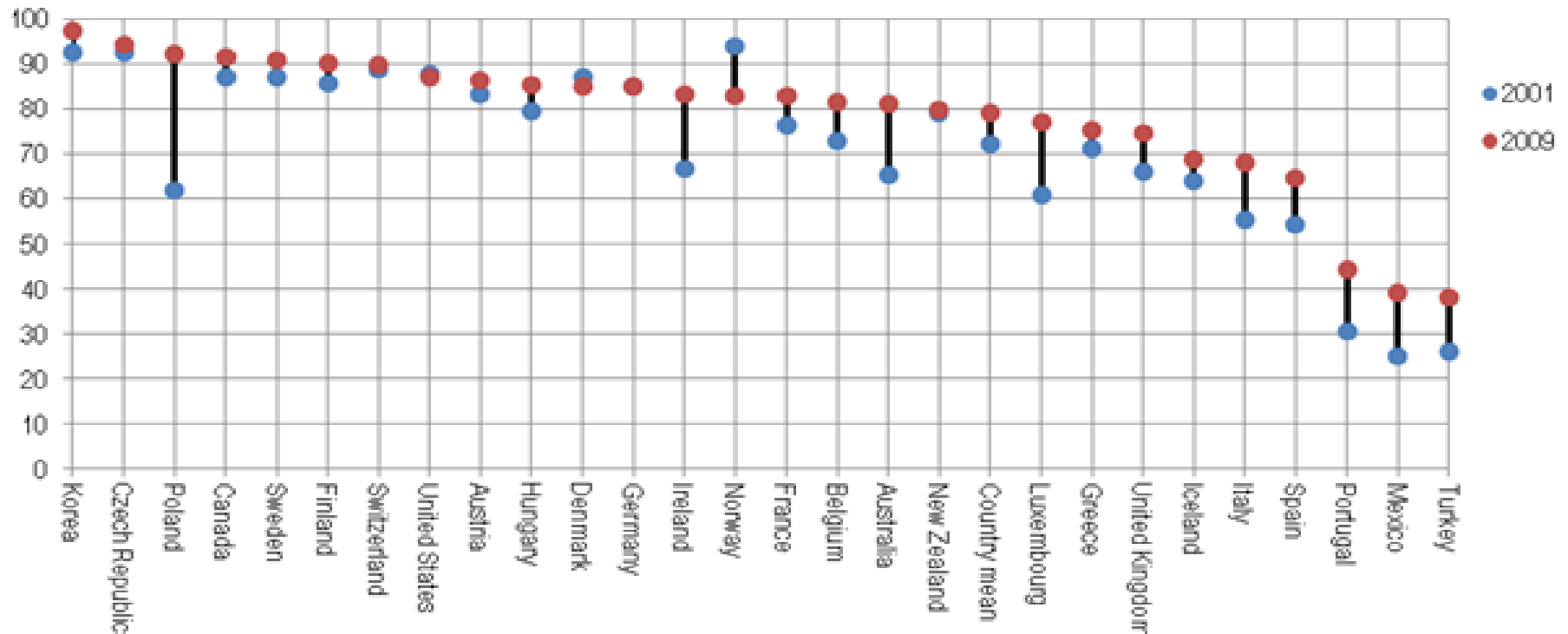
Completion challenge

- Upper secondary: the minimum necessary education and training for life (EU)
 - Students who don't complete have fewer chances in life, in the workforce, in civic life
- Completion still tied closely to SES in many countries
 - Students who need the most resources unfortunately often get fewer than more privileged students.

COMPLETION RATES FOR UPPER SECONDARY

How many students complete upper secondary school? Overview of the evolution from 2001 to 2009

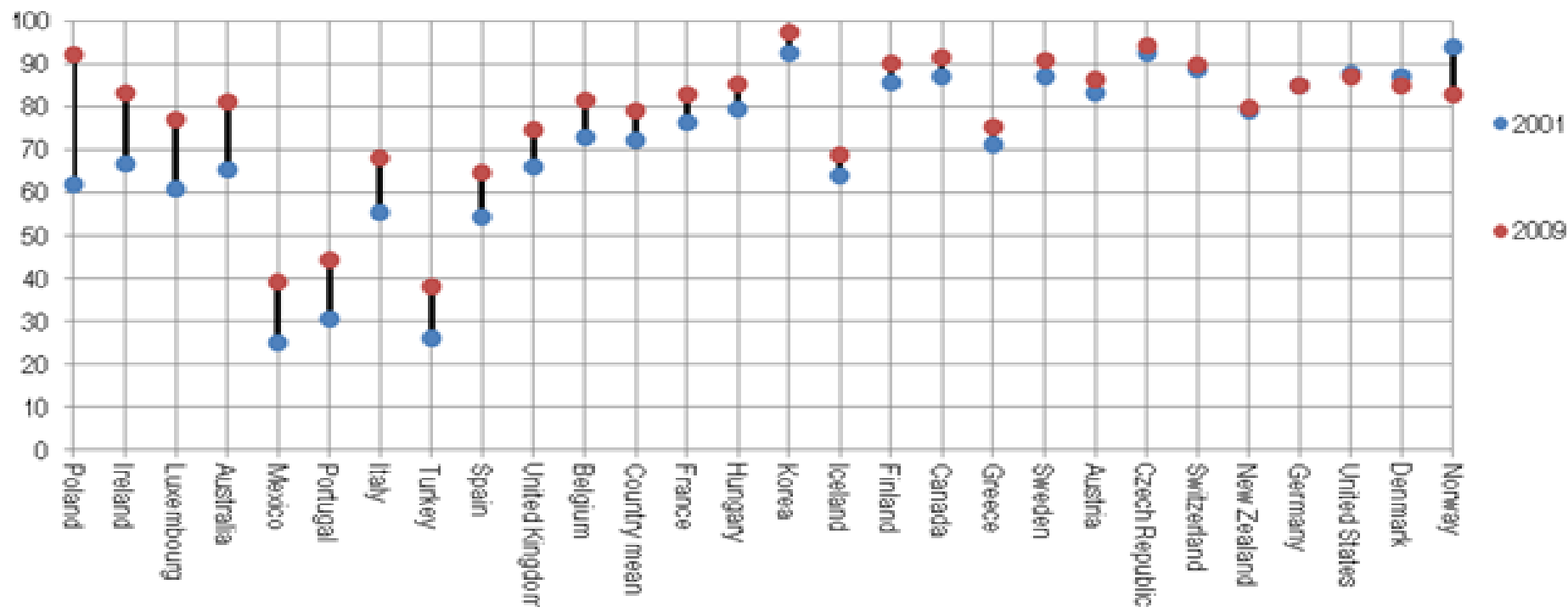
Percentage of 25-34-years-old that do not have at least uppersecondary education



COMPLETION RATES ARRANGED BY RATES OF PROGRESS

How many students complete upper secondary school? Overview of the evolution from 2001 to 2009

Percentage of 25-34-years-old that do not have at least uppersecondary education



Labour market outcomes

Employment and educational attainment

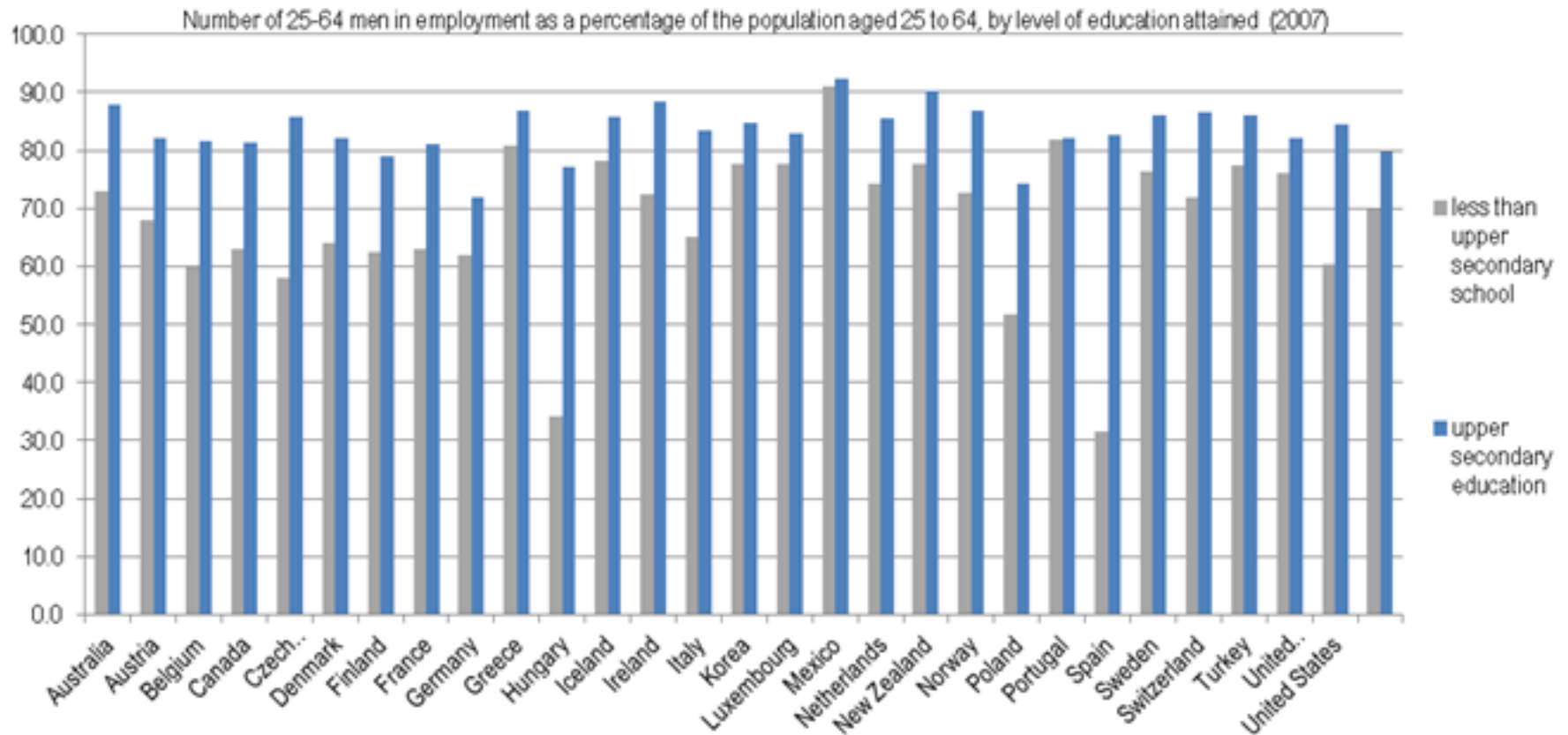


TABLE 2 INTERVENTIONS THAT DEMONSTRABLY RAISE THE HIGH SCHOOL GRADUATION RATE

<i>Intervention</i>	<i>Details of the Intervention</i>	<i>Extra high school graduates if intervention is given to 100 students</i>
PPP Perry preschool program	1.8 years of a center-based program for 2.5 hours per weekday, child:teacher ratio of 5:1; home visits; and group meetings of parents.	19
FTF First Things First	Comprehensive school reform of: small learning communities with dedicated teachers; family advocates; and instructional improvement efforts.	16
CSR Class size reduction	4 years of schooling (grades K–3) with class size reduced from 25 to 15.	11
CPC Chicago child-parent center program	Center-based pre-school program: parental involvement, outreach and health/nutrition services. Based in public schools.	11
TSI Teacher salary increase	10% increase in teacher salaries for all years K–12.	5

SOURCES: Belfield et al. (2006); Quint et al. (2005); Finn et al. (2005); Reynolds et al. (2001); Loeb and Page (2000).

TABLE 3 PRESENT VALUE COSTS PER EDUCATIONAL INTERVENTION AT AGE 20

<i>Interventions to raise high school graduation</i>		<i>Cost per student^a</i>	<i>Cost per expected high school graduate^b</i>
FTF	First Things First	\$5,500	\$59,100
CPC	Chicago child-parent center program	\$4,700	\$67,700
TSI	Teacher salary increase	\$2,900	\$82,000
PPP	Perry preschool program	\$12,500	\$90,700
CSR	Class size reduction	\$13,100	\$143,600

SOURCES: See Table 2 and NCES (2002).

NOTES: ^a The unit cost of delivering the intervention. ^b The cost of delivering the intervention to 100 students and the induced extra attainment in high school and college for the new high school graduates. Discount rate is 3.5%.

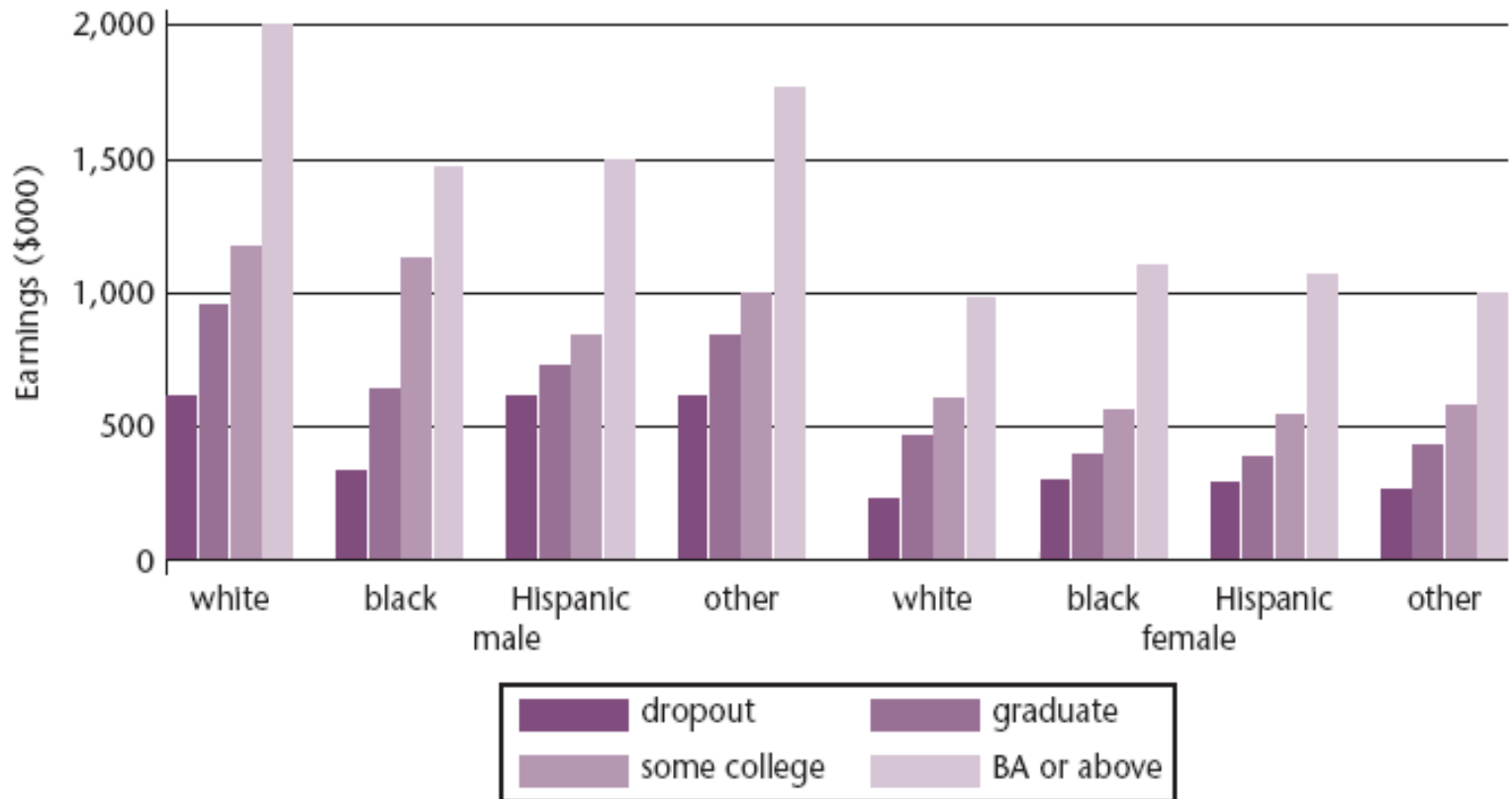
TABLE 4 LABOR MARKET OUTCOMES BY EDUCATIONAL ATTAINMENT (AGED 21–64)

	<i>High school dropout</i>	<i>High school graduate</i>	<i>Some college</i>	<i>BA degree or more</i>
<i>Employment (%):</i>				
Male: white	71	79	81	89
Male: black	49	66	70	83
Male: Hispanic	70	78	69	85
Male: other	71	79	77	88
Female: white	46	65	72	78
Female: black	46	63	70	84
Female: Hispanic	51	57	64	65
Female: other	48	62	69	73
<i>Average annual earnings:</i>				
Male: white	\$22,800	\$33,900	\$40,300	\$79,100
Male: black	\$13,500	\$21,800	\$29,600	\$53,800
Male: Hispanic	\$21,400	\$24,000	\$26,000	\$54,200
Male: other	\$22,300	\$30,100	\$34,900	\$69,700
Female: white	\$7,800	\$16,500	\$20,400	\$35,600
Female: black	\$10,000	\$14,200	\$19,500	\$40,600
Female: Hispanic	\$9,900	\$14,500	\$17,300	\$39,000
Female: other	\$8,600	\$15,700	\$19,200	\$36,900

SOURCE: Current Population Survey (March 2003 and 2004).

NOTES: Employment rates are based on populations, not labor force size. Annual earnings include those with zero earnings. No adjustment is made for incarceration rates.

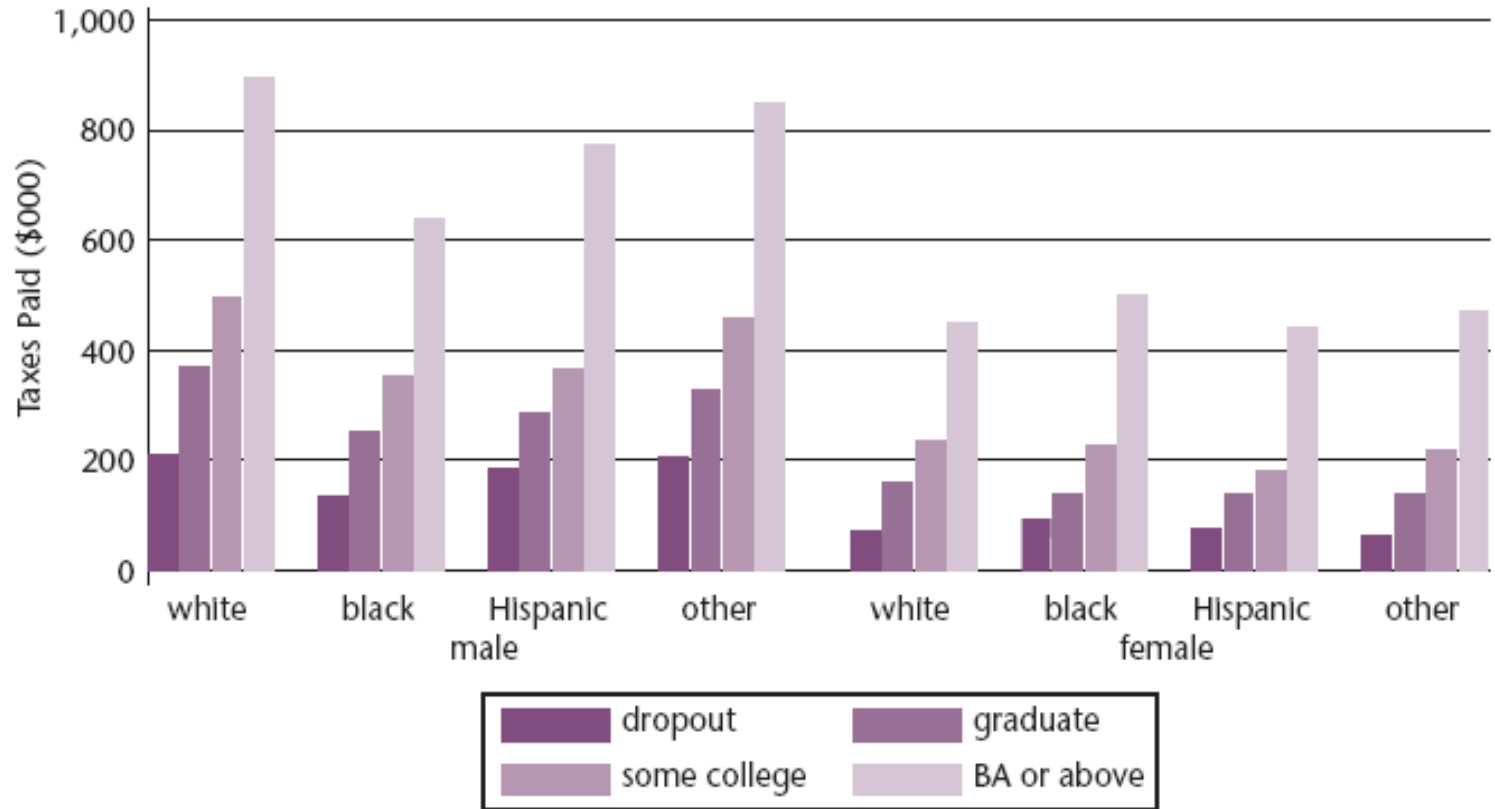
CHART 1 LIFETIME EARNINGS BY EDUCATION LEVEL



SOURCES: Current Population Survey (March 2003 and 2004).

NOTES: Earnings figures include all persons, i.e., persons with positive or zero income. Figures are adjusted for differences in incarceration rates by education level (but not GED status). Productivity growth is assumed at 1.5% per year. Discount rate is 3.5%.

CHART 2 LIFETIME TAX PAYMENTS BY EDUCATION LEVEL



SOURCES: Current Population Survey (March 2003 and 2004); TAXSIM (NBER, Version 6).

NOTES: Figures are adjusted for differences in incarceration rates by education level (but not GED status). Income tax payments are calculated as the average of assuming all males are single and all males are household heads. Sales and property taxes are 5% of income tax payments. Discount rate is 3.5%.

TABLE 7 LIFETIME TOTAL PUBLIC HEALTH SAVINGS PER EXPECTED HIGH SCHOOL GRADUATE

	<i>Public health expenditures</i>	
	<i>Extra lifetime saving per expected high school graduate</i>	
	<i>Male</i>	<i>Female</i>
White	\$27,900	\$39,600
Black	\$52,100	\$62,700
Hispanic	\$37,800	\$46,500
Other	\$39,000	\$49,200
<i>Average</i>	<i>\$40,500</i>	

NOTES: An expected high school graduate is one who probabilistically either: terminates education after graduation; completes some college; or completes a BA Degree. Discount rate is 3.5%.

Impacts: Crime

- Since 1987 public spending on incarceration has risen by 127 percent and on higher education by 21 percent
- Already several states spend more on incarceration than higher education
- Consistent evidence of education on crimes and incarceration
- About half of all incarcerated are high school dropouts
- Focus only on five major crimes (most crimes are misdemeanors; exclude fraud and juvenile crime)

TABLE 8 ANNUAL CRIMINAL ACTIVITY BY DROPOUTS AGED 20

	<i>Per 1,000 high school dropouts</i>		<i>Impact from expected high school graduation</i>
	<i>Arrests</i>	<i>Crimes</i>	
Murder	0.48	0.82	-19.6%
Rape	0.69	2.43	-19.6%
Violent crime	14.02	32.24	-19.6%
Property crime	42.95	279.17	-10.4%
Drugs offenses	60.04	600.43	-11.5%

SOURCES: UCR (2004) adjusted for undersurvey; Wolf and Harlow (2003); Lochner and Moretti (2004).

NOTES: Violent crime includes robbery and aggravated assault. Property crime includes burglary, larceny-theft, arson, and motor vehicle theft. The share of total arrests by high school dropouts is based on incarceration rates.

TABLE 9 TOTAL PRESENT VALUE LIFETIME COST-SAVINGS FROM REDUCED CRIMINAL ACTIVITY

	<i>Criminal justice system expenditures Extra lifetime saving per expected high school graduate</i>	
	<i>Male</i>	<i>Female</i>
White	\$30,200	\$8,300
Black	\$55,500	\$8,600
Hispanic	\$38,300	\$8,300
Other	\$30,200	\$8,300
<i>Average</i>	<i>\$26,600</i>	

NOTES: An expected high school graduate is one who probabilistically either: terminates education after graduation; completes some college; or completes a BA degree. Annual criminal activity is assumed to decay to zero by age 65. The decay rate is based on the actual incidence of crime for each age group (UCR, 2004, Table 1). Discount rate is 3.5%.

Impacts: Welfare

- Effects of education are strongest for those whose dependence on public assistance is most intensive such as single mothers
- Focus only on three programs: TANF, housing assistance and food stamps

TABLE 11 WELFARE COST-SAVING PER EXPECTED HIGH SCHOOL GRADUATE

	<i>Welfare expenditures</i>	
	<i>Extra lifetime saving per expected high school graduate</i>	
	<i>Male</i>	<i>Female</i>
White	\$1,200	\$5,000
Black	\$3,300	\$9,000
Hispanic	\$1,200	\$3,100
Other	\$1,200	\$3,100
<i>Average</i>	<i>\$3,000</i>	

NOTES: Expected high school graduate status adjusts for progression on to college. Lifetime welfare cost-savings adjust for the decline in these forms of welfare receipt with age. Welfare programs are TANF, housing assistance, food stamps, and state-level programs on a proportionate basis. Discount rate is 3.5%.

Lifetime Benefits Per Additional High School Graduate

TABLE 12 PRESENT VALUE LIFETIME PUBLIC ECONOMIC BENEFITS

Total lifetime economic benefit per expected high school graduate

Male

Female

White	\$262,100	\$162,000
Black	\$268,500	\$174,600
Hispanic	\$196,300	\$143,000
Other	\$239,000	\$157,300
<i>Average</i>		<i>\$209,100</i>

NOTES: Benefits are gross, i.e. they do not account for the costs of additional educational attainment. An expected high school graduate is one who probabilistically either: terminates education after graduation; completes some college; or completes a BA degree. Discount rate is 3.5%.

Cost-benefit Ratios

TABLE 13 NET PUBLIC INVESTMENT RETURNS

<i>Per additional expected high school graduate</i>	<i>Interventions to raise high school graduation rates</i>				
	<i>First Things First</i>	<i>Chicago Parent-Child Center</i>	<i>Teacher salary increase</i>	<i>Perry Preschool</i>	<i>Class size reduction</i>
Costs (C)	\$59,100	\$67,700	\$82,000	\$90,700	\$143,600
Benefits (B)	\$209,100	\$209,100	\$209,100	\$209,100	\$209,100
Benefit/cost ratio (B/C)	3.54	3.09	2.55	2.31	1.46
Net present value (B-C)	\$150,100	\$141,400	\$127,100	\$118,400	\$65,500

NOTES: Numbers are rounded to nearest \$100. Costs include delivering the intervention and any subsequent public subsidies for high school and college. Discount rate is 3.5%.



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Net present value (B-C)	\$150,100	\$141,400	\$127,100	\$118,400	\$65,500

NOTES: Numbers are rounded to nearest \$100. Costs include delivering the intervention and any subsequent public subsidies for high school and college. Discount rate is 3.5%.



Some conclusion

- Increasing high school graduation increases equity and justice
- Also a great investment for society where the benefits far exceed costs
- Each additional graduate confers the equivalent of a CD worth \$127,000 to the taxpayer beyond personal benefits
- Schools must choose programs that are effective to get these results



Some of the challenges

- Lack of engaging education for youth
- Lack of good quality guidance and counselling
- Lack of support in transitions between levels
- Lack of equivalent pathways
- Lack of second chances (adult education)

Policies and practices to ensure completion

- Step 1: Limit early tracking
- Step 2: Manage school choice
- Step 3: **Inclusive upper secondary education**
- Step 4: **Second chances**
- Step 5: **Help those falling behind**
- Step 6: Reach out to homes
- Step 7: Respond to diversity
- Step 8: Priority to early childhood and basic education
- Step 9: **Direct resources to needy areas and schools**
- Step 10: **Targets for equity**