Senior High School and the Labor Market: Perspectives of Grade 12 Students and Human Resource Officers

A Study on the Employability of the Senior High School Graduates: Evidence from the Labor Force Survey

Aniceto C. Orbeta, Jr.
Senior Research Fellow
PIDS Public Webinar| June 24, 2021

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Features of RA 10533: The Enhanced Basic Education Act of 2013

- Strengthening Early Childhood Education (Universal Kindergarten)

- Making Curriculum Relevant to Learners (Contextualization and Enhancement)

- Ensuring Integrated and Seamless Learning (Spiral Progression)

- Building Proficiency through (Mother Tongue-Based Multilingual Education)

- Gearing Up for the Future (Senior High School)

- Nurturing the Holistically Developed Filipino (College and Livelihood Readiness, 21st Century Skills)

Source: www.gov.ph/k-12/

Study Objectives

1. Look into the **SHS curriculum** and the **competencies** developed

2. Identify the **types of jobs** that fit SHS graduates

3. Gather **private sector perspective** on the jobs available and appropriate for the SHS graduates

4. Provide **policy recommendation** for the improvement of the SHS curriculum

Research Design and Methodology

Primary data collection methods

- Focus group discussions with Grade 12 students
  - 27 FGDs, 18 schools (12 public, 6 private)
- Key informant interviews with HR managers of firms
  - 26 firms in NCR, Cebu, IV-A

Secondary data collected

- Grade 12 enrollment and graduation statistics

Desk review

- DepEd and DOLE guidelines on the implementation of K-to-12 and work immersion
- CSC hiring policies
- Online jobsites

Basic Education Curriculum

Elementary	Kinder to Grade 6			
Junior High School (G7-10)	**Grades 7 to 8** (Exploratory TLE)	**Grades 9 to 10** (Specialized TLE)		
Senior High School (G11-12)	**8 Core Learning Areas**	**TRACKS** Contextualized Track Subjects		
		Academic	**Technical-Vocational Livelihood**	**Sports** / **Arts & Design**
	Language Humanities Communications Mathematics Philosophy Science Social Science P.E. & Health	1. GAS 2. STEM 3. ABM 4. HUMSS 5. Pre-Baccalaureate Maritime	1. Home Economics 2. Agri-Fishery 3. Industrial arts 4. ICT 5. TVL Maritime	
	Work immersion / culminating activity / research			

Source: Department of Education.

SHS Characteristics

G12 Enrollment and Schools, SY 2017-2018

2.7 million SHS Students in SY 2017-18

- 1.2 million in G12
- 51.6% in DepEd schools

11,087 SHS

- 58% DepEd

TYPE	SCHOOLS		G12 ENROLLMENT	
	Number	%	Number	%
Public	6,404	58%	646,618	52%
Private	4,451	40%	564,351	45%
SUC/LUC	232	2%	41,388	3%
TOTAL	**11,087**	**100**	**1,252,357**	**100**

SHS Characteristics: Strand Offerings

GAS & TVL are the most offered strands.

Strand	PUBLIC		Private		SUC/LUC		Total	
	Number	%	Number	%	Number	%	Number	%
1 GAS	4,305	34.4	2,600	23.0	66	10.2	6,971	28.5
2 TVL	4,503	36.0	2,246	19.8	162	25.1	6,911	28.2
3 ABM	1,241	9.9	2,627	23.2	121	18.7	3,989	16.3
4 HUMSS	1,317	10.5	1,857	16.4	132	20.4	3,306	13.5
5 STEM	974	7.8	1,812	16.0	150	23.2	2,936	12.0
6 ARTS	93	0.7	106	0.9	5	0.8	204	0.8
7 SPORTS	67	0.5	38	0.3	8	1.2	113	0.5
8 MARITIME	3	0.0	35	0.3	2	0.3	40	0.2

Source of basic data: Department of Education.

A large proportion of schools (38%) offer only one strand as of SY 2017-18

SHS Characteristics

- **Graduation Rates by Track**

- **Plans After Graduation by Track**

Note:

Data on SHS graduates, as of June 15, 2018;

Source:

Education Management Information System Division - Department of Education

Track	Graduation Rate
Academic	96.0%
TVL	96.3%
Sports	97.4%
Arts and Design	94.6%
National	**96.1%**

Plan after graduation	Track		Total
	ACAD	TVL	
Go to college	**74.9**	**76.1**	**75.4**
Work and study	20.5	3.7	13.7
Get a job	4.1	18.7	10.0
Undecided	0.5	1.5	0.9
Total	**59.3**	**40.7**	**100.0**

1. Selection of school, track, and strand

Selection of school	Selection of track and strand
- Convenience - Affordability - Free tuition in public schools - Vouchers for tuition in private schools - Continuity of secondary education in same school - Influence of family and peers - Perceived reputation of school	- Individual preference - Interests - Relevance of track/strand to plans after SHS - Perception of strands - Advice and influence of parents, siblings, and peers - Availability of track/strand in chosen school - Guidance during SHS orientation - NCAE results

2. Experience in SHS

- **Subjects enjoyed** largely **depend on the teachers' effectiveness.**

- **Students would assess importance of subjects depending on their relevance to the track and strand they were enrolled.**
  - Some believed that subjects outside their specialization should be taken up in JHS or not at all.

- **Overall, SHS prepared them for their next steps.**
  - Students shared that it helped them develop soft skills and firm up their decisions for college and/or career.

- **Common challenges encountered by students were:**
  1. Lack of required facilities, textbooks, and materials for demonstration purposes;
  2. Dissatisfaction with the class and curriculum management;
  3. Issues in teaching quality; and
  4. Standardized exams across classes under different teachers

3. Prospects of Finding Employment after SHS

- **In general, students were not entirely confident about their employability.**
  - Most believe that opportunities for SHS graduates might be limited to entry-level positions
  - Many TVL students from public schools appeared relatively confident since they have National Certifications (NC).

- **Most students believe that the main consideration of employers are educational qualifications, technical skills, soft skills, and attitude**.

- **Jobs they perceived as commonly available to them were those classified among clerical support, service and sales, trade jobs, and elementary occupations.**
  - Students expect to receive minimum wage which is commensurate to their qualification.

- **Most of the students were firm about their plans to pursue higher education because of the perception that college degree raises better employment opportunities and salaries**.
  - This implied that their reservation wage was infinity as their priority was really to go to college, especially those under the Academic track.

4. Prospects of Going to College after SHS

- **Most of the students, regardless of strand, reported that they planned to proceed to college.**

- **Free tuition in SUCs and LUCs would be helpful to most of the students but was not a deciding factor for college attendance.**
  - Some students expressed concerns about the law saying that it has made college admission requirements more stringent.

- **Students' selection of courses are vertically aligned with their SHS strands and potential economic gains connected with employment opportunities.**

- **Some potential issues in entering higher education coming from SHS raised were:**
  1. Possible requirement of bridging programs for off-track SHS graduates
  2. Difficulty with courses not related to strand in SHS

General Findings

- **All firms have some understanding of the SHS program but lack familiarity on the SHS curriculum which is needed to gauge the capacity of SHS graduates.**

- **Majority of the firms interviewed reported that they are willing to hire SHS graduates.**
  - However, some firms gave preconditions for hiring such as:
    - (1) requiring competencies and specialized skills
    - (2) improving work immersion experience
    - (3) offering low rank positions.

  - SHS graduates are only qualified for low positions given the existing policies of the Civil Service Commission.

- **Most firms will offer the same jobs for both SHS and JHS graduate.**

General Findings

- **The current number of hours of practicum/work immersion (i.e., minimum of 80 hours) is not enough.**

- **There is confusion on the "completion" versus "graduation" from Junior High School.**
  - According to PCCI, JHS completers no longer receive a diploma but just a Certificate of Completion.
  - Some also expressed concern on whether JHS graduates can be accepted considering that their ages (i.e., 16-17 years) are below the DOLE's allowed age for employment.

- **More firms perceive that SHS graduates are not work-ready**.
  - They raised concerns on the inadequate technical and behavioral skills of SHS graduates as well as lack of length and quality of work immersion.

FINDINGS AND RECOMMENDATIONS

WHAT?	WHY?	HOW?
Most firms are reluctant to hire Senior HS graduates.	Most firms lack in-depth knowledge of the Senior HS program.	▪ Enhance information campaigns and other awareness-raising activities among employers about the Senior HS program.
Most firms perceive Senior HS graduates as not work-ready.	For most firms, the minimum 80-hour work immersion requirement is not enough to expose students to skills application and in honing behavioral skills and traits.	▪ Ensure that students are deployed in work immersion venues that complement their track/specialization choice. ▪ Implement a longer and competency-oriented work immersion for students.
Most Senior HS students are not confident they will get a job after completing senior HS.	SHS students believe that firms still prefer to hire college graduates.	▪ Improve the awareness of firms on the competencies taught in senior high school. ▪ Improve arrangements for taking and acceptability to firms of NC assessments.

WHAT?	WHY?	HOW?

Many employers offer elementary occupations to Senior HS graduates; others do not differentiate Senior HS graduates from junior HS completers.	▪ Some firms prefer college graduates or college-level for middle-level skilled jobs.
	▪ LGUs are restricted by the qualification standards of the CSC.
	▪ Shipping lines have to follow the regulations for recruiting sea-based personnel set by the Maritime Industry Authority.
		▪ Encourage firms and government agencies to adjust their hiring policies.
		  • Online job sites must be Senior HS graduate-friendly;
		  • CSC must review requirements for government job positions requiring high school graduates; and
		  • MARINA should allow the hiring of Senior HS graduates.

Most senior HS students, regardless of tracks, still plan to proceed to college.	Completing college is still the preferred education outcome	▪ Review and update curriculum content including immersion delivery models and exit options for students
		▪ Improve college preparation:
		  • Upgrade quality and standardization of teaching Senior HS subjects; and
		  • Highlight the importance of deepening knowledge in the core courses.

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Background

Employment and entrepreneurship were identified as possible exits for SHS graduates when SHS was introduced.

Study Objectives

1. Describe the labor market outcome of SHS graduates

2. Compare the labor market performance of SHS graduate with his/her peers such as Grade 10 graduates and second year college

Methodology

❑ Compared labor market outcome of **SHS graduates (G12) to G10 graduates, and second year college.**

❑ Framed as a **multi-valued treatment effect estimation**.

- Each education attainment is a treatment

❑ Used **inverse-probability weighted regression adjustment (IPWRA)** – combines IPW and RA (doubly robust property).

- Estimates propensity score that will be used in inverse probability weights (IPW). IPW balances treatment and control units.

- Runs a regression for each outcome weighted by IPW weights.

- Computes the difference between predicted outcomes.

Independent Variables used

Propensity score variables (IPW)

- Personal characteristics: e.g., sex;
- Household characteristics: e.g., location of residence; household size; max of education of parents; and max of age of parents

Regression adjustment variables

- Sex, age, household size, *characteristics of parents:* education and age

Methodology

Data source

❑ Labor Force Survey (LFS) – July and October 2018, 4 Quarters of 2019, January, and April 2020

Note: First SHS graduates in April 2018

Outcomes of interest

- Labor force participation

- Employment

- Underemployment

- Work hours

- Basic pay

- Proportion working as wage and salary workers

- Proportion self-employed

- Proportion working in industry

Cohort included: Age 15-20

Those who have completed grade 9, grade 11, first year college and currently enrolled (presumably in the next level) and presumed to complete the next level (in the April 2018 round of the LFS).

86.5% of the target cohort

NOTE: LFS only the records grade completed and whether attending school or not but not the grade level attending

Age as of Last Birthday	Freq.	Percent	Cum.
13	2	0.03	0.03
14	628	9.17	9.20
15	1609	23.50	32.70
16	1077	15.73	48.43
17	1649	24.08	72.51
18	975	14.24	86.75
19	387	5.65	92.40
20	223	3.26	95.66
21	123	1.80	97.46
22	79	1.15	98.61
23	59	0.86	99.47
24	37	0.54	100.01
Total	6848	100.00	

Descriptive statistics

Distribution of the analysis sample by education completed and survey round

Education	Survey year-month								Total
	201807	201810	201901\a	201904\a	201907	201910	202001	202004	
G10	5,174	4,620	4,771	4,522	4,334	4,281	3,925	4,480	36,107
G12	1,815	1,908	1,845	2,906	2,701	2,161	2,182	3,082	18,600
2COL	607	640	1,560	1,799	420	486	480	864	6,856
Total	7,596	7,168	8,176	9,227	7,455	6,928	6,587	8,426	61,563

Source: Authors' computation based on LFS Jul, Oct 2018; Jan, April, July, October 2019; Jan, Apr 2020 rounds
\a Unlike for the other survey rounds, 2COL in 2019 rounds refers to college undergraduates. Limiting the age to 15-20 increases the likelihood that the ones included are in the lower years of college.

School attendance of the cohorts by LFS round

	201807	201810	201901	201904	201907	201910	202001	202004	Total
G10	0.728	0.715	0.719	0.747	0.766	0.778	0.771	0.795	0.751
G12	0.752	0.768	0.770	0.852	0.741	0.733	0.731	0.811	0.775
2COL	0.722	0.792	0.842	0.861	0.833	0.846	0.837	0.911	0.840
Total	0.733	0.736	0.754	0.802	0.761	0.769	0.763	0.813	0.768

Source: Authors' computation based on LFS Jul, Oct 2018; Jan, April, July, October 2019; Jan, Apr 2020 rounds

Descriptive Statistics

Averages of outcomes for the eight LFS rounds

|	In Labor Force	Employed	Under-employed	Visible Under-employed[7]	Hours	Daily basic pay	In Wage & Salary	Self-employed[8]	In industry
G10	0.218	0.845	0.134	0.496	35	302	0.685	0.327	0.227
G12	0.233	0.787	0.151	0.511	35	316	0.692	0.316	0.205
2COL	0.164	0.813	0.119	0.532	34	397	0.688	0.321	0.110
Total	**0.217**	**0.824**	**0.138**	**0.503**	**35**	**314**	**0.687**	**0.323**	**0.210**

Source: Authors' computation based on LFS Jul, Oct 2018; Jan, April, July, October 2019; Jan, Apr 2020 rounds

Labor market outcomes across the survey rounds
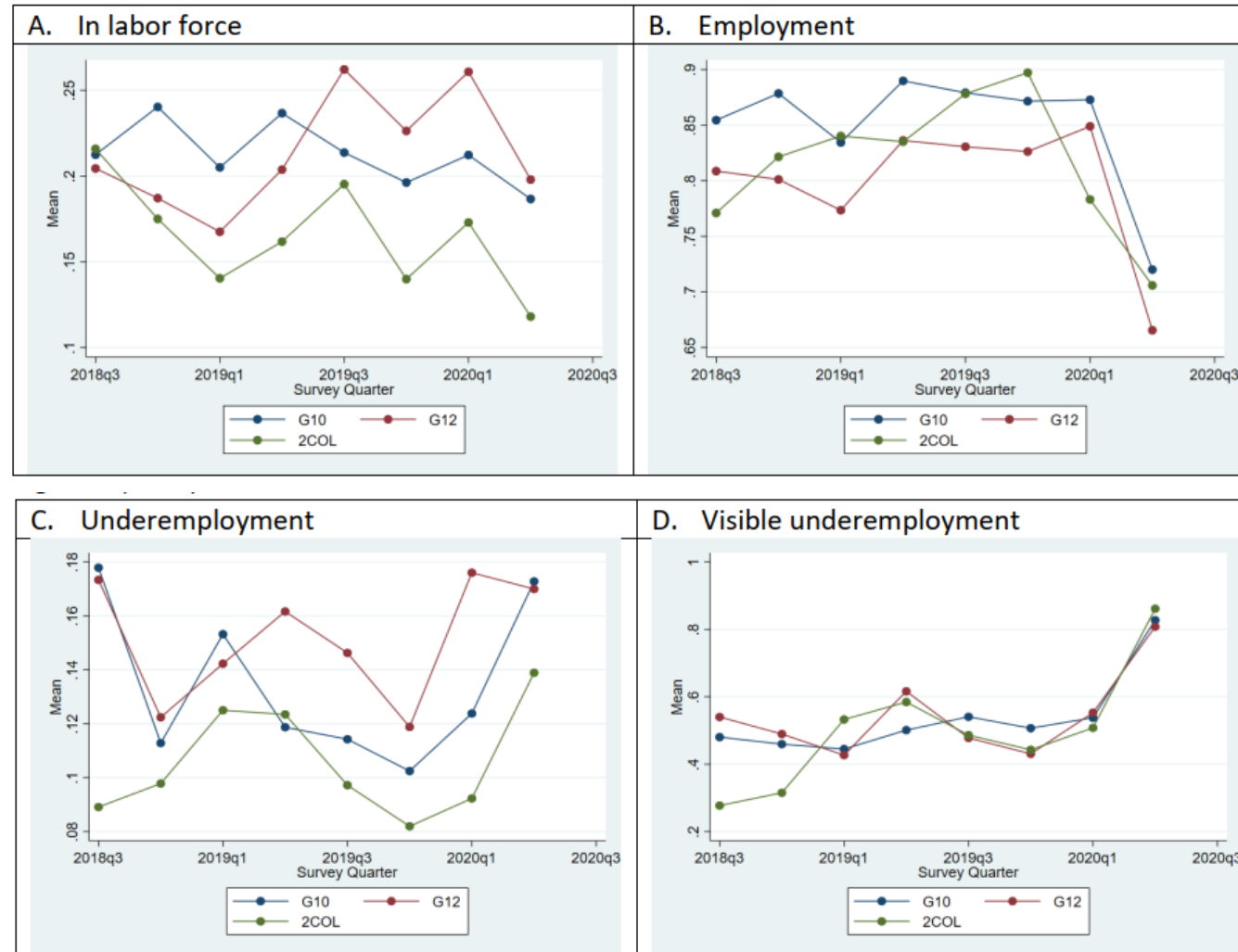
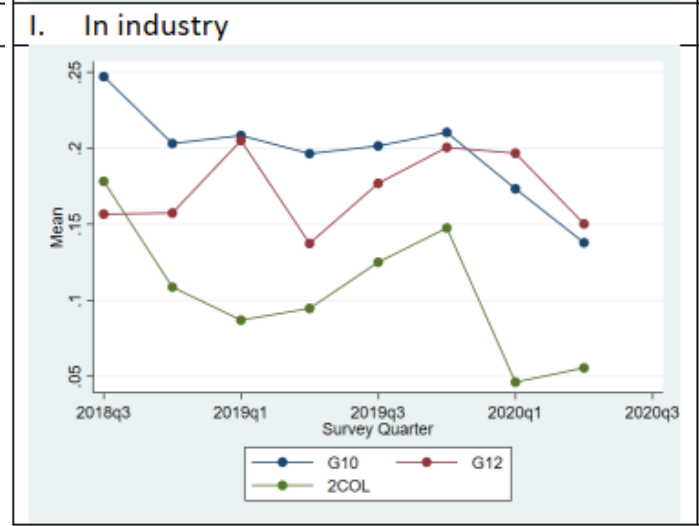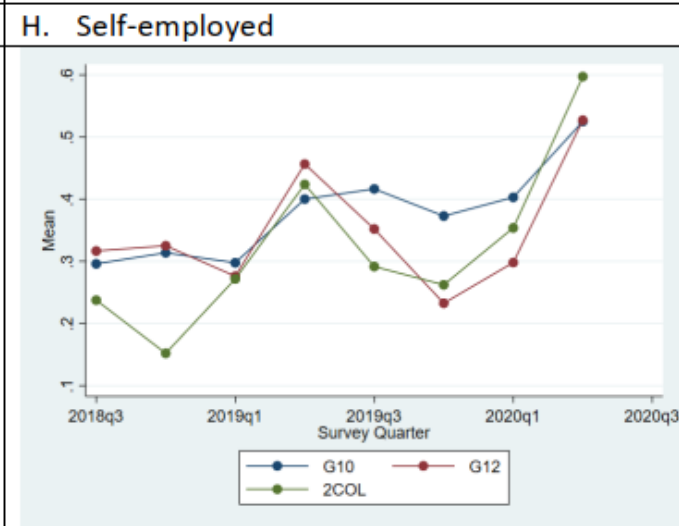
Source: Authors' computation based on LFS Jul, Oct 2018; Jan, April, July, October 2019; Jan, Apr 2020 rounds

Labor market outcomes across the survey rounds
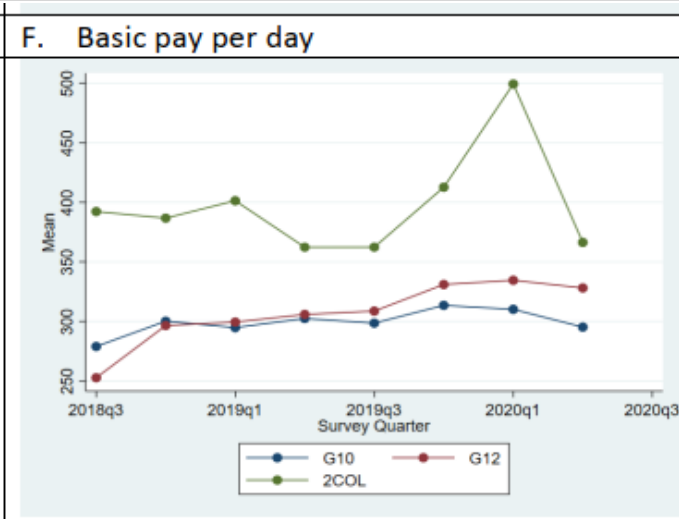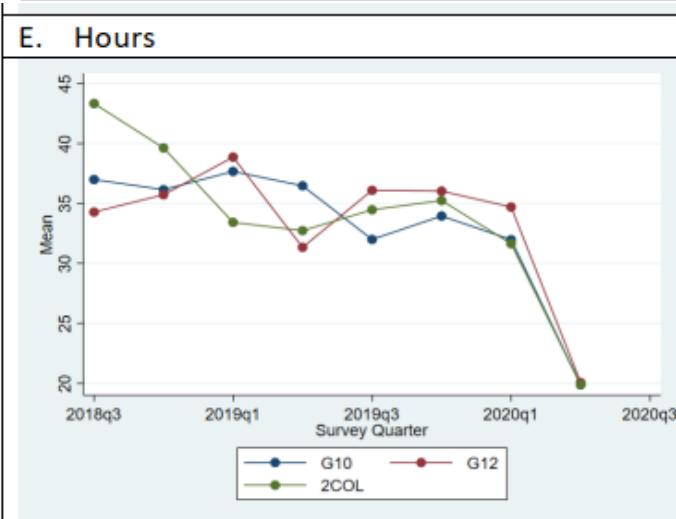
Source: Authors' computation based on LFS Jul, Oct 2018; Jan, April, July, October 2019; Jan, Apr 2020 rounds

Desired labor market outcomes

Outcomes	Desired outcome	Outcomes	Desired outcome	
Labor force participation	⋀	Wage rate	⋀	
Employment rate	⋀	In wage and salary	⋀	*
Underemployment rate	⋁	In self-employment	⋁	**
Visible underemployment rate	⋁	In industry	⋀	***
Work hours	⋀			

* More stable income
** Less stable income
*** Higher average salary

Estimation Results

IPWRA estimation results

	INLF	EMP	UNDEMP	VUNDEMP	HOURS	BPAY	SALW	SELF-EMP	IN IND
	b/se	b/se	b/se	b/se	b/se	b/se	b/se	b/se	b/se
ATE									
G10 vs G12	0.086***	0.057***	-0.022*	-0.041**	1.546**	-20.909***	0.028*	-0.024*	0.030*
	[0.005]	[0.011]	[0.011]	[0.013]	[0.576]	[4.817]	[0.011]	[0.012]	[0.012]
2Col vs G12	-0.075***	0.058*	-0.034	0.097**	-5.418***	25.577	-0.101**	0.096*	-0.101***
	[0.013]	[0.024]	[0.034]	[0.037]	[1.639]	[15.700]	[0.038]	[0.039]	[0.019]
POmean									
G12	0.196***	0.783***	0.155***	0.512***	34.376***	322.054***	0.680***	0.327***	0.198***
	[0.003]	[0.009]	[0.009]	[0.011]	[0.495]	[4.126]	[0.010]	[0.010]	[0.010]
N	61563	12785	10648	10648	10648	6418	10648	10648	10648
SE in brackets									
* p<0.05 ** p<0.01 *** p<0.001									
Estimated with survey round fixed effects									

Source: Authors' computation based on LFS Jul, Oct 2018; Jan, April, July, October 2019; Jan, Apr 2020 rounds

Estimation Results in Pictures

	Desired	G10 vs G12	2-year college vs G12
In labor force	↑	↓	↑
Employment rate	↑	↓	↓
Underemployment rate	↓	↑	NS
Visible underemployment rate	↓	↑	↓
Hours worked	↑	↓	↑
Basic Pay	↑	↑	NS
In Salary and Wage	↑	↓	↑
In Self-employment	↓	↑	↓
In Industry	↑	↓	↑

Summary

❑ LFS data
- Only 20% of SHS grads enter the labor force
- Most (70+%) continue with their education

❑ Mixed labor market outcomes and does not show clear advantage or disadvantage compared to G10 and second-year completers

Recommendations

❑ **Re-examine the employment and entrepreneurial objectives of the SHS program**
  - Most SHS graduates are continuing their education rather than entering the labor force
  - Importance of core courses because these are general education courses in college

❑ **On labor market outcomes**
  - Re-examination of the work preparation component in the SHS curriculum since SHS graduates do not have clear advantage over G10 and second year college completers

❑ **On type of employment**
  - Find ways of improving performance in wage and salary and self-employment
    - **Wage employment:** G10 > G12 > Second year college
    - **On self-employment:** Second year college completers > G12 > G10

❑ **Continue to monitor and assess the labor market performance of SHS graduates**
  - The niche of SHS graduates in the labor market still needs to be found and clearly defined

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