

Dan Rather Reports

Episode Number: 807

Episode Title: German Jobs Machine

Description: In his State of the Union address, President Obama lauded the German education system for preparing kids for good jobs out of high school. The German model, and German companies, are quickly transplanting the idea to the U.S.

ACT 1: TEASE

DAN RATHER (VOICE OVER)

TONIGHT...IT'S EDUCATION...THE GERMAN WAY.... DECIDING BY AGE 10 IF A CHILD IS LIKELY TO GO TO COLLEGE OR NOT.

RATHER

To me, this seems a lot of pressure for a ten-year-old child .

SILVIA FAKNER,
DIRECTOR, ALBERT MERGLEN ELEMENTARY

I think you're right. If you look into a class, into the fourth grade, there are lots of children who have lots of pressure.

RATHER (VOICE OVER)

IT'S ALL PART OF THE GERMAN JOBS MACHINE...KEEPING YOUTH UNEMPLOYMENT LOW BY STEERING MANY STUDENTS AWAY FROM COLLEGE AND INTO TRADE SCHOOLS.

RATHER

Did you ever say to yourself-- "You know, I'd rather be in the classroom, studying history, studying literature, reading"

SUSANNE GNAAN, APPRENTICE

No. No.

RATHER

No?

GNAAN

Sit there and listen all day? It's-- it would be too boring for me.

RATHER (VOICE OVER)

ALSO...COMING TO AMERICA...GERMAN COMPANIES OPENING FACTORIES HERE GET PUSHBACK FROM EDUCATORS AND PARENTS WHO FAVOR COLLEGE FOR ALL.

LINDA STROJAN,
GUIDANCE COUNSELOR, AIKEN HIGH SCHOOL

They're glad manufacturing is reviving, "But my child is not going to work on the assembly line. My child is going to get a college degree."

RATHER (VOICE OVER)

WE'LL BRING YOU THE NEWS, TONIGHT ON DAN RATHER REPORTS...

ACT 2: GERMAN JOBS MACHINE

DAN RATHER (ON CAMERA)

GOOD EVENING. IT 'S HARD TO BELIEVE THAT IN A COUNTRY WITH 12 MILLION PEOPLE LOOKING FOR WORK, THERE ARE NEARLY 3.7 MILLION OPEN JOBS IN AMERICA...RIGHT NOW.

BUT THAT'S WHAT THE BUREAU OF LABOR STATISTICS SAYS, AND A CHUNK OF THOSE UNFILLED JOBS -- UP TO 275,000 DEPENDING ON WHOM YOU ASK--ARE IN THE MANUFACTURING SECTOR. THAT'S SIGNIFICANT BECAUSE THESE JOBS ARE SOME OF THE BEST PAID VACANCIES OUT THERE.

BUT YOU NEED TRAINING...SOMETHING THAT IS SORELY LACKING IN THIS COUNTRY. A TOPIC PRESIDENT OBAMA ALLUDED TO IN HIS RECENT STATE OF THE UNION ADDRESS.

BARACK OBAMA, PRESIDENT OF THE UNITED STATES
STATE OF THE UNION, 2013

Let's also make sure that a high school diploma puts our kids on a path to a good job. Right now, countries like Germany focus on graduating their high school students with the equivalent of a technical

degree from one of our community colleges, so those German kids, they're ready for a job when they graduate high school.

RATHER (ON CAMERA)

SO WHAT IS THIS GERMAN MODEL? IS THERE AN ALTERNATIVE TO SADDLING YOUNG PEOPLE WITH DEBT IN ORDER TO GET A DEGREE? TONIGHT, AN INVESTIGATION INTO THE GERMAN JOBS MACHINE...WHERE GERMAN COMPANIES ARE NOW INVESTING BILLIONS OF DOLLARS IN AMERICA ...AND AMERICANS.

RATHER (VOICE OVER)

WITH ITS CENTURIES OLD CHURCHES, COBBLESTONE STREETS AND OF COURSE ITS STEINS OF BEER, GERMANY STILL EXUDES OLD WORLD CHARM. BUT FOR ALL THE LOVELY FACADES, THE BACKBONE OF THE COUNTRY IS PURE IRON AND STEEL.

GERMANY IS AN EXPORT POWERHOUSE, SURPASSED ONLY BY CHINA IN THE NUMBER OF GOODS IT SELLS TO THE WORLD. DEMAND FOR ITS PRODUCTS KEEPS ITS FACTORY FLOORS HUMMING...AND ITS PEOPLE AT WORK. AND MANY CREDIT AN OLD-FASHIONED SYSTEM THAT COULD BE A MODEL FOR ANY PROSPEROUS 21ST CENTURY WORKFORCE.

TO FIND OUT THE SECRET BEHIND GERMANY'S SUCCESS, WE TRAVELED TO FRIEDRICHSHAFEN, A SMALL TOWN IN SOUTHERN GERMANY NEAR THE BLACK FOREST AND THE SWISS BORDER...

THE CITY HAS BEEN COMPLETELY REBUILT AND SHOWS FEW SCARS OF WHAT HAPPENED IN WORLD WAR TWO WHEN IT WAS LEVELED BY ALLIED BOMBERS TARGETING ITS MILITARY FACTORIES. NOW THE TOWN'S FACTORIES ARE A SYMBOL OF THRIVING MODERN GERMANY.

TAKE THE TOGNUM COMPANY - A MULTINATIONAL SPECIALIZED MANUFACTURING SUCCESS STORY.

RATHER

Now, what kind of engine is that?

JOERG KLISCH,
VICE PRESIDENT, TOGNUM

That's a generator engine that goes into a....

RATHER (VOICE OVER)

JOERG KLISCH IS A VICE PRESIDENT AT THE COMPANY, A MAKER OF GIANT DIESEL ENGINES THAT ARE USED IN GENERATORS, MINING EQUIPMENT, AND EVEN HIGH SPEED FERRIES. THE PLANT CRANKS OUT 12 ENGINES A DAY WHICH FETCH ANYWHERE FROM \$250,000 TO \$3 MILLION DOLLARS...EVEN THOUGH THEY ARE HUGE, JOERG COMPARES THEM TO SWISS WATCHES...

KLISCH

The precision is down to one micron. It's basically the preciseness of a hair, of a human hair, how we make these parts. That's the only way that these engines can perform the way they do today.

RATHER (VOICE OVER)

KLISCH SAYS THE CRITICAL COMPONENT IN HIS FACTORY IS AN EDUCATED AND MOTIVATED WORKER WHO KNOWS EVERY ASPECT OF THE PRODUCTION LINE.

KLISCH

These days, the worker is the core of the business. And they come up with ideas that the engineers—

RATHER

Which is why you need highly skilled and highly tra--

KLISCH

This is exactly why we need highly skilled people that can think about what they are doing and can come up with ideas on how they could do it more precise, more safe-- cheaper and better quality, you name it.

RATHER (VOICE OVER)

TOGNUM IS AS PRECISE WITH ITS WORKFORCE AS IT IS WITH ITS PRODUCTS, CAREFULLY SHAPING ITS WORKERS FROM THE GROUND UP BY BRINGING THEM ON AS TEENAGERS.

THIS BABY-FACED NINETEEN YEAR OLD IS ATTACHING THE FLYWHEEL HOUSING TO AN ENGINE BLOCK. IF HE DOES IT WRONG, THE COMPANY COULD BE OUT SOME SERIOUS MONEY.

BUT HE KNOWS WHAT HE'S DOING ... HE'S BEEN AT WORK HERE SINCE HE WAS 16 YEARS OLD!

IT'S A CONCEPT ALMOST UNHEARD OF IN THE UNITED STATES BUT IT'S BEEN A PART OF A LONG-STANDING PROGRAM IN GERMANY. IT'S CALLED 'DUAL EDUCATION,' WHERE

TEENAGERS DIVIDE THEIR TIME BETWEEN THE CLASSROOM AND A COMPANY, DOING THREE YEAR APPRENTICESHIPS THAT GIVE HIGH SCHOOL STUDENTS AN EMPLOYABLE SKILL, A TASTE OF THE WORKFORCE, AND A BIT OF POCKET MONEY.

RATHER

German businesses, as a whole, invest about 23 billion Euros annually-- that would be roughly \$30 billion a year annually-- in their apprentice programs. That's a very expensive proposition.

KLISCH

It's an investment in young people. But it's also an investment in the future that pays out in the end. We want to have experienced-- educated people that work on our products in order to improve the quality for - for our customers. And we want to make sure that we train them to our needs in order to be as perfect as possible.

INSTRUCTOR

What is the difference between the two sides?

MARIUS, APPRENTICE

that is the exhaust....

RATHER (VOICE OVER)

THESE STUDENTS HAVE FINISHED 10TH GRADE AND NOW SPLIT THEIR TIME BETWEEN AN APPRENTICESHIP AT A LOCAL COMPANY AND THIS TECHNICAL SCHOOL...LEARNING FOR EXAMPLE HOW TO PREVENT EROSION WHEN AN ENGINE STARTS TO OVERHEAT.

JULIAN AND MARIUS SIGNED CONTRACTS WITH TOGNUM WHEN THEY TURNED 16.

CONTRACTS SPECIFYING WHEN THEIR HOLIDAYS ARE, AND WHAT THEIR PAY IS...\$1200 A MONTH THE FIRST YEAR....IT'S EXACTLY WHAT JULIAN WANTED

JULIAN, APPRENTICE

I don't want to sit the whole day at the table and read books. I want to do some practical working with machines or engines, and so I think this was the best way for me.

RATHER (VOICE OVER)

AND THIS ISN'T SOME SWEATSHOP FLOOR-- FOR THESE YOUNGSTERS, THE NEXT THREE YEARS WILL BE JAM PACKED WITH LEARNING...THE KIND OF LEARNING THAT MAKES

YOU NOSTALGIC FOR THE DAYS WHEN SHOP CLASS AND AUTOMOTIVE WERE REQUIREMENTS IN AMERICA'S HIGH SCHOOLS.

RATHER

Okay, so now we're going to drill. Stand back men, this could get ugly

RATHER (VOICE OVER)

I MADE A SMALL PISTON FROM SCRATCH.

JULIAN

So now you're finished..

RATHER (VOICE OVER)

FRANK ROGALL IS THE HEAD OF THE APPRENTICESHIP TRAINING PROGRAM, AND HE SAYS THESE ARE THE KINDS OF SKILLS THAT THE YOUNG PEOPLE ARE LEARNING.

FRANK ROGALL,
DIRECTOR, GLOBAL APPRENTICE TRAINING

They do all of these parts on the drilling machine, on the milling machine

RATHER

They make the parts themselves?

ROGALL

They make the parts

RATHER

They make all these parts?

ROGALL

Yes. They make all of the parts there.

RATHER

Each apprentice makes all of these parts?

ROGALL

Exactly.

RATHER (VOICE OVER)

THEIR FINAL EXAM AT THE END OF THE FIRST YEAR IS TO TAKE THE PARTS THEY MAKE AND ASSEMBLE THEM INTO A TWO STROKE ENGINE.

RATHER

So he, his parts have to be perfectly done?

ROGALL

It has to be really precise.

RATHER

Otherwise the engine won't work. It looks very complicated to me.

ROGALL

We are here to show them exactly step by step what to do. On their next project they will be working independent, that's how we train them.

RATHER (VOICE OVER)

THE END OF YEAR EXAM ISN'T A MULTIPLE CHOICE TEST, IT'S 'DOES YOUR ENGINE START?'. JULIAN AND MARIUS PASSED THE TEST WITH FLYING COLORS.

BY THE THIRD YEAR THE APPRENTICES ARE READY FOR THE FACTORY FLOOR WHERE THEY CAN EVENTUALLY EARN THE EQUIVALENT OF 50-65,000 DOLLARS A YEAR...WITH FULL BENEFITS.

APPRENTICE SUSANNE GNAAN HAS NO REGRETS ABOUT CHOOSING THIS PATH INSTEAD OF UNIVERSITY

RATHER

Did you ever say to yourself-- "You know, I'd rather be in the classroom, studying history, studying literature, reading--"

SUSANNE GNAAN, APPRENTICE

No. No.

RATHER

No?

GNAAN

It's-- it's so interesting that I cannot imagine going to university and sit there and listen all day, it's-- it would be too boring for me.

RATHER (VOICE OVER)

THE GERMAN MODEL IS THAT MANY YOUNG PEOPLE ARE BETTER SERVED BY GETTING HANDS ON EXPERIENCE LEARNING A TRADE THAN BY GOING TO COLLEGE. . IT'S A CONTROVERSIAL IDEA, ESPECIALLY FOR AMERICAN PARENTS. AND WHAT IS LIKELY MOST SHOCKING IS HOW EARLY THIS GERMAN MODEL BEGINS. .

WELCOME TO ALBERT MERGLEN ELEMENTARY SCHOOL.

IN 'FRAU' BECK'S THIRD GRADE, CHILDREN ARE LEARNING ABOUT MIRRORS. IN SECOND GRADE THEY'RE PRACTICING ENGLISH WITH THE SCHOOL'S DIRECTOR, SILVIA FAKNER.

BUT IT'S NOT ALL SONGS AND GAMES. EVEN AT THIS EARLY AGE, MS. FAKNER AND HER COLLEAGUES ARE ALREADY CAREFULLY OBSERVING EACH CHILD TO DECIDE WHO IS 'UNIVERSITY MATERIAL' AND WHO ISN'T. THAT'S RIGHT, IT STARTS THIS EARLY.

THESE 4TH GRADERS WILL SOON BE GIVEN AN ASSESSMENT TEST. THE RESULTS, ALONG WITH THEIR PAST PERFORMANCES, WILL DETERMINE WHO ADVANCES TO WHAT THE GERMANS CALL 'GYMNASIUM' - AN ACADEMIC HIGH SCHOOL ON THE PATH TO UNIVERSITY AND WHO IS DESTINED FOR VOCATIONAL SCHOOL.

RATHER

Describe for me the kind of student who winds up going on the fastest track, the gymnasium, headed to college and university. What kind of student usually winds up going there?

SILVIA FAKNER,
DIRECTOR, ALBERT MERGLEN ELEMENTARY

Well, the children are interested in learning. They are-- have-- a good motivation to learn. Then they are-- of course, they have to be clever, intelligent.

RATHER (VOICE OVER)

THE 'GYMNASIUM' STUDENTS ARE THE STARS, THOSE WHO HAVE BEEN EARNING 1s AND 2s, THE EQUIVALENT OF As AND Bs. SILVIA ESTIMATES FORTY PERCENT OF THESE KIDS WILL MAKE THE CUT. LIKE FLORIAN.

RATHER

Are you getting good grades?

STUDENT

Yes.

RATHER

You do?

STUDENT

Yes.

RATHER

So how many 1s did you make?

STUDENT

Last year I have three 1s.

RATHER

Oh, that's good. Hey congratulations. Give me High Five.

RATHER (VOICE OVER)

THE REST OF THE STUDENTS IN THIS CLASS - MORE THAN HALF - WILL NOT BE ON THE PATH TO COLLEGE. THEY ARE DESTINED FOR VOCATIONAL SCHOOLS AND THEN ON TO THE APPRENTICE PROGRAMS. THAT'S LIKELY THE PATH FOR 12 YEAR OLD ARIF.

RATHER

What is your best subject?

ARIF, STUDENT

English.

RATHER

English! Well your English is good! I wish my German was as good as your English...

RATHER

To me, this seems a lot of pressure for a ten-year-old child.

FAKNER

I think you're right. If you look into a class, into the fourth grade, there are lots of children who have lots of pressure.

RATHER (VOICE OVER)

THERE ARE A LOT OF CRITICISMS OF THE GERMAN MODEL. FOR ONE, THERE'S EVEN A LOWER LEVEL OF VOCATIONAL SCHOOL THAT LEADS TO COMPARATIVELY POOR-PAYING SERVICE JOBS. IT'S HERE THAT MOST OF GERMANY'S IMMIGRANT POPULATION ENDS UP - DESTINED TO BE WOODWORKERS, WAITERS, AND HOTEL CLERKS...LIKE THIS 8TH-GRADE BOY LEARNING HOW TO WELCOME GUESTS IN ENGLISH.

STUDENT

Can I stay at the youth hotel?

TEACHER

I'm sorry the hotel is full.

RATHER (VOICE OVER)

ACROSS TOWN AT THE KARL MAYBACH GYMNASIUM, IT COULDN'T BE A MORE DIFFERENT EXPERIENCE FOR STUDENTS WHO ARE ON THE PATH TO UNIVERSITY. THEIR HIGH SCHOOL CLASSES INCLUDE MACRO ECONOMICS AND ENGLISH LITERATURE.

NICOLE PILGRIM,

TEACHER, KARL MAYBACH GYMNASIUM

So we can call that a leitmotif? Do you remember that?"

RATHER (VOICE OVER)

THESE TEENS ARE TACKLING W. SOMERSET MAUGHAM'S 'THE FORCE OF CIRCUMSTANCE'...TAUGHT BY NICOLE PILGRIM

RATHER

The system as it now exists, is it working?

PILGRIM

Yes. I would say it is working because we have good people—Germany is doing well-- quite-- quite well, I would say. We have people that become engineers-- but we also have people who do an apprenticeship and are really well-skilled workers who we need. And every-- everybody works hand in hand.

RATHER (VOICE OVER)

THE RESULTS SPEAK FOR THEMSELVES. UNEMPLOYMENT FOR 16-24 YEAR OLDS IN GERMANY IS ONLY 8%, WHILE IN THE REST OF THE EUROPEAN UNION, IT IS A WHOPPING 25%. AND AT HOME IN THE UNITED STATES, 16% OF PEOPLE UNDER 25 ARE UNEMPLOYED, THE HIGHEST RATE IN THIRTY YEARS. AND THEN THERE'S THIS: ALL OF THOSE WORKING TEENAGERS ARE MAKING GERMANY THAT MUCH STRONGER. AND GERMANY IS HELPING PROP UP A STRUGGLING EUROPE. BUT THERE ARE MANY WHO SAY THAT THE SYSTEM ISN'T WORKING - THAT THE GERMAN EDUCATIONAL SYSTEM IS LEADING TO A SEGREGATED SOCIETY. AND THEN THERE'S THE QUESTION OF LATE-BLOOMERS. DOES IT MAKE SENSE TO TRACK A PERSON'S FUTURE BEGINNING IN THE FOURTH GRADE?

YET FOR ALL OF THE QUESTIONS ABOUT THE GERMAN MODEL, MANY IN THE UNITED STATES THINK THERE ARE LESSONS WE SHOULD FOLLOW. THAT PART OF THE STORY WHEN WE RETURN...

ACT 3: GERMAN JOBS MACHINE

DAN RATHER (VOICE OVER)

AS WE'VE SEEN TONIGHT, GERMANY'S REPUTATION FOR ENGINEERING EXCELLENCE HAS HELPED IT BECOME AN EXPORTING MACHINE POWERED BY A SYSTEM THAT RELIES ON VOCATIONAL EDUCATION.

NOW, GERMAN COMPANIES ARE EXPANDING THEIR MANUFACTURING MIGHT TO THE UNITED STATES - ALONG WITH THEIR APPROACH TO JOB TRAINING.

AND THAT BRINGS US TO SOUTH CAROLINA. THE OLD MILLS AROUND THE TOWN OF AIKEN ONCE MADE THIS PLACE A TEXTILE HUB. ...BUT WHEN CLOTHING MANUFACTURERS WENT OVERSEAS...THE MILLS SHUT DOWN...AND HAVE BEEN ABANDONED FOR YEARS.

BUT THERE'S A MANUFACTURING REVIVAL CHURNING AWAY....AND COMPANIES...56 OF THEM FROM GERMANY...ARE HUNGRY FOR WORKERS. BUT EDUCATING HIGH SCHOOLERS IN HI-TECH MANUFACTURING IS A FOREIGN CONCEPT IN AMERICA.

THAT'S WHAT JOERG KLISCH FOUND OUT WHEN TOGNUM BUILT A FACTORY IN AIKEN, SOUTH CAROLINA TWO YEARS AGO...

JOERG KLISCH,
VICE PRESIDENT OF NORTH AMERICAN OPERATIONS, TOGNUM

I had young people applying for a job in my facility, and they're--

RATHER

In South Carolina?

KLISCH

In South Carolina. And I said, "Well-- what can you offer?" And they said, "Well, I have-- my high school diploma and other than that, I'm unskilled." So I said, "C'mon? You tell me you go 12 years to school in order to be unskilled. I think we can do better than that."

RATHER (VOICE OVER)

KLISCH IS NOW VICE PRESIDENT OF TOGNUM'S NORTH AMERICA OPERATIONS. TOGNUM WAS LURED HERE BY CHEAP ENERGY, LOW TAXES AND A NON -UNION WORKFORCE. BUT THEY NEED MORE WORKERS TO BUILD THOSE BIG ENGINES.

SO THE COMPANY REACHED OUT TO BROOKS SMITH.

BROOKS SMITH,
DIRECTOR, AIKEN CAREER AND TECHNOLOGY CENTER

From day one, vocational was not a taboo word for our German friends.

RATHER (VOICE OVER)

SMITH RUNS AIKEN SCHOOL DISTRICT'S 'CAREER AND TECHNOLOGY CENTER' --THAT'S THE NEW PHRASE FOR VOCATIONAL TRAINING IN AMERICA -- AND EVERY DAY HUNDREDS OF STUDENTS TAKE ELECTIVE CLASSES IN WELDING, MACHINING AND MECHANICAL ELECTRONICS. TRYING TO GIVE THEM MARKETABLE AND EMPLOYABLE SKILLS...OR AT LEAST KEEP THEM INTERESTED IN SCHOOL.

SMITH

We have welding students that graduate from high school; they're ready to be a welder and they're makin' \$2,000 a week. Well, that student has no student loans. But what they do have is a skill that manufacturing companies need.

RATHER (VOICE OVER)

WITH ONE OUT OF EVERY FOUR SOUTH CAROLINA STUDENTS DROPPING OUT OF HIGH SCHOOL, THERE'S A HOPE THAT VOCATIONAL CENTERS CAN KEEP MORE KIDS ON TRACK.

AND IT'S NOT ALL STEEL AND SPARKS, IT CAN BE ROLLERS AND PINS.

TAYLOR WHITE SAYS WHAT SHE IS LEARNING HERE WILL GIVE HER SOMETHING SHE CAN ALWAYS FALL BACK ON...AND SHE CAN USE WHAT SHE MAKES TO PAY FOR COLLEGE...IF SHE WANTS.

TAYLOR WHITE

I'm a people person. I love talking to people. It's a good way to get to know people.... Hopefully you can go to about \$45,000 a year maybe, and that will get me through college so...

RATHER (VOICE OVER)

WHETHER IT'S BEAUTY OR BRAWN, SMITH HAS PLENTY OF WILLING STUDENTS, BUT THE MISSING LINK HAS ALWAYS BEEN A BIG TIME EMPLOYER WILLING TO HIRE HIS HIGH SCHOOLERS.....UNTIL TOGNUM CAME ALONG.

WHITE

We would like to use the opportunity and actually combine the capabilities that the career center has and the opportunities that we can offer at our company.

RATHER (VOICE OVER)

KLISCH IS TALKING TO PARENTS AND STUDENTS ABOUT WHAT HIS COMPANY CAN OFFER. AND LENA PIERCE, FOR ONE, LIKES WHAT SHE'S HEARING.

LENA PIERCE

This is a win, win, I don't have to pay for it, he can get it, and they offer for him the opportunity for him to go on. He has to get into this program, he has to.

RATHER (VOICE OVER)

LAST YEAR, TOGNUM STARTED WORKING WITH THE CAREER CENTER TO DESIGN CLASSES THAT WERE MORE RIGOROUS AND RELEVANT ... THEN, IN ONE OF THE FIRST EXPERIMENTS LIKE IT IN THIS COUNTRY...IT SELECTED FIVE SOPHOMORES TO TURN INTO GERMAN STYLE APPRENTICES.

CALEB DYAR IS ONE OF THEM. ON A WEDNESDAY MORNING WHEN HIS PEERS ARE SITTING THROUGH 11TH GRADE ALGEBRA, HE IS LUBRICATING AN ENGINE PART UNDER THE WATCHFUL EYE OF KLISCH.

KLISCH

This needs to be done very carefully because if we damage this part then we start from zero

RATHER (VOICE OVER)

IT'S A MODIFIED APPROACH TO THE GERMAN MODEL. HERE, THE APPRENTICESHIP IS ONLY TWO YEARS LONG, AND THE JUNIORS SPEND JUST 13 HOURS A MONTH DURING THE SCHOOL YEAR AT TOGNUM.

CALEB DYAR

I like that we get a chance to see how it is working' in the real world instead of just being' in the classroom with the teacher telling' you what to do and you don't get to say anything. This is more hands-on and they care what we have to say. And they listen to us and our opinions matter.

RATHER (VOICE OVER)

KLISCH WANTS THE APPRENTICES TO MAKE THE CONNECTION BETWEEN THE CLASSROOM AND THE FACTORY FLOOR.

DYAR

This is the perfect example why math, calculus, geometry is so important because you see the part, you need to relate to the drawing and then you need to relate also to the dimensions. You have to actually

understand how to do a job and apply what you've learned in school, not just know what it is their teaching.

RATHER (VOICE OVER)

BY THE TIME CALEB FINISHES HIGH SCHOOL, HE AND THE OTHERS WILL HAVE WORKED 1,000 HOURS ON THE FACTORY FLOOR, AND HAD 600 HOURS OF CLASSROOM TRAINING, EARNING A CERTIFICATE IN INDUSTRIAL MECHANICS....THEY WILL BE ELIGIBLE FOR JOBS AT TOGNUM THAT PAY \$32,000 A YEAR...OR THEY CAN TAKE THEIR CERTIFICATES ELSEWHERE.

KLISCH

They are doing things that they never thought they would do, so I have a lot of faith they will make it, because kids in Germany or kids in the US, I don't see a difference.

RATHER (VOICE OVER)

BUT 30 MINUTES FROM TOGNUM, AT AIKEN HIGH SCHOOL, NORTH OF TOWN, LINDA STROJAN DOESN'T THINK TOO MANY PARENTS WILL BUY WHAT KLISCH IS SELLING

LINDA STOJAN,
GUIDANCE COUNSELOR, AIKEN HIGH SCHOOL

They're glad manufacturing is reviving, "But my child is not going to work on the assembly line. My child is going to get a college degree."

RATHER (VOICE OVER)

STROJAN IS THE SCHOOL'S LONGTIME GUIDANCE COUNSELOR.

STOJAN

Ok babies, we've made it this far...this is great. Did you believe at the beginning of the year that we'd be this far along . I love it, it's great.

RATHER (VOICE OVER)

SHE IS PART MOTHER HEN ...AND PART DRILL SERGEANT...AND AN ALL-OUT BELIEVER IN COLLEGE.

STROJAN

September's going to come very quickly, and you need to have something to do other than sit on your momma's couch.

RATHER (VOICE OVER)

STROJAN SAYS MOST STUDENTS HAVE THEIR HEARTS SET ON FOUR YEAR COLLEGE, IT'S BECOME A RITE OF PASSAGE...AND SHE BELIEVES HER STUDENTS HAVE GRANDER PLANS THAN THE FACTORY FLOOR.

STROJAN

They want to dream and they want to dream big. And many of them have big goals. They've been told they can reach those goals and whether they can or they can't, they're going to try to do it.

RATHER (VOICE OVER)

NATIONWIDE, 14 MILLION AMERICANS ENROLLED IN FOUR YEAR COLLEGE LAST YEAR. BUT MORE THAN HALF OF RECENT COLLEGE GRADS ARE EITHER JOBLESS OR WORKING SOMEWHERE THAT DOESN'T REQUIRE A BACHELOR'S DEGREE.

THOSE WHO TAKE OUT LOANS TO PAY FOR COLLEGE OWE AN AVERAGE OF \$26,500 UPON GRADUATION.

STROJAN

Will they have debt? Yes. Will they manage to pay it off slowly? Yes, they will. Going straight out w-- out of high school without a college degree truly limits their opportunities and where they're going to go.

SMITH

I met a young lady who was working at a Costco in the area. And she was tellin' me about how she had \$100,000 of student loans and that you know right now she was not even technically a senior in college.

RATHER (VOICE OVER)

THAT'S WHY SMITH THINKS HIGH SCHOOL STUDENTS SHOULD BE GETTING NEW ADVICE, A WIDER RANGE OF OPTIONS.

BROOKS

I feel that-- our-- our guidance counselors in our high schools, for the most part-- they graduated high school, they went to a four-year college, they got a graduate degree. And what they are encouraging students is to follow the same pathway that-- that they're familiar with. What we need is, we need some

welders to become guidance counselors in our high schools

RATHER (VOICE OVER)

SO, WHAT'S THE SOLUTION? LATER ON OUR PROGRAM, IN THE BATTLE OF VOCATIONAL TRAINING VS. COLLEGE, ONE FAMOUS CAR MAKER HAS A DIFFERENT IDEA...SO STAY WITH US.

ACT 4: ROBERT SCHWARTZ

DAN RATHER (ON CAMERA)

WELCOME BACK. AND NOW SOME CONTEXT AND PERSPECTIVE ON THE VERY DIFFERENT GERMAN APPROACH TO EDUCATION AND EMPLOYMENT. ROBERT SCHWARTZ HAS STUDIED IT EXTENSIVELY... HE ALSO IS ONE OF THIS COUNTRY'S LEADING EDUCATION REFORMERS AND A PROFESSOR OF GRADUATE STUDIES AT HARVARD...I SAT DOWN RECENTLY WITH DR. SCHWARTZ IN NEW YORK. PAY CLOSE ATTENTION TO WHAT THE PROFESSOR HAS TO SAY BECAUSE HE IS THINKING ABOUT SOME DIFFERENT IDEAS HIMSELF.

RATHER

Well, first of all, thank you very much for doing this.

ROBERT SCHWARTZ,
PROFESSOR OF PRACTICE AND ACADEMIC DEAN,
HARVARD GRADUATE SCHOOL OF EDUCATION

Oh, my pleasure.

RATHER

Tell me what you know, what we should know about the German education system, which was mentioned in President Obama's State of the Union Address.

SCHWARTZ

Well you know, no system is perfect. There are challenges and problems with-- with their system as well as with ours. But they seem to manage to get a much higher proportion of their young people through high school on into-- the workplace with skills and credentials. Two statistics that always strike me, one is that their youth unemployment rates-- are only half-- as-- the size of ours. They're typically in the sort of 8% or 9%, when we're in the 18% to-- to 20%.

RATHER

Well-- to me, and let me be candid with you-- there's something offensive about deciding at age 10 or thereabouts, "Listen, you're college material, in our opinion. And you're not college material." Let's discuss that. Does that trouble you at all?

SCHWARTZ

It absolutely troubles me. The further north you go in Europe, the-- the less likely you are to find that kind of tracking. I mean, in Denmark and Finland, all young people are in a common curriculum-- for the first nine—years.

And then at age 15 or 16, it's young people and their families that are making choices between a university path or a vocational path.

The other point to make is that, you know, we-- we tend-- we look at the German system and we say, "Oh my gosh, they're making predictions about, you know, what somebody is gonna be at age 15."

The Germans and the others-- have now built pathways that enable young people to continue on with their education, to come back into a university or other kind of-- polytechnic kind of track, so that you can continue to upgrade your skills. If you want to move into management, they have universities that give you those credentials and skills. So it's a more-- it is, in fact, a more fluid system-- than it might appear-- to American eyes.

RATHER

Well, what needs fixing in our system?

SCHWARTZ

A lot. I mean I think that a system like the German system is obviously deeply implanted in that culture. You can't simply pick it up and transplant it to the U.S. But I've gotta believe that there are some core principles that we could-- we could learn from. I mean, the first thing to say is that we, as a country, increasingly have depended really only on one set of institutions to help young people make a successful transition from schooling to work or from adolescence to adulthood, if you want to put it that way.

We've put all of our money on higher education. And, you know, over the last 20 years in particular-- well, you know, on the one side, we have s-- been saying to young people and their families, obviously, "It really is important to get a solid underpinning of academic knowledge and skills. Everybody needs that in this economy if you're gonna have a chance to survive." So--

RATHER

And also to live a full--

SCHWARTZ

To live--

RATHER

--purposeful life.

SCHWARTZ

Right, exactly. This isn't just about employment. This is-- this is-- you know, there-- there are civic purposes of education. There are just sort of life-fulfilling purposes. But somehow that idea has morphed into the idea that all kids need to go onto-- a four-year college if they're going to have a fair shot at the-- kind of the American dream.

RATHER

Well-- the Obama administration is trying to make it easier to get kids to college by bringing down the interest rate on loans and by making more loans possible to get to college. In your judgment, based on your experience and study, is that the right approach?

SCHWARTZ

No. I'd have to say-- I mean, I-- I-- I mean, loading up young people with loans-- and not addressing the problem that I've been focused on, which is really helping young people make smarter choices about what they study and to-- to make those choices based, at least, with s-- with one eye on where the economy is going and whether or not the skills that they are acquiring-- actually have value in the labor market. I mean, I think that-- that, to me, is-- is-- is a key priority.

An awful lot of young people (I've seen estimates suggesting as high as 40% of the 25 year olds with four-year degrees) are working in jobs that d-- don't really require a four-year degree. I mean, so--

RATHER

They could have gotten that job without going to college.

SCHWARTZ

They could have-- in the old days, they could have gotten that job. Now employers-- are being-- you know, they're-- they're using the four-year degree as a kind of, you know, screening device. So-- but jobs that really didn't require those skills and that don't have the-- that really don't pay what we think of as a kind of middleclass wage are being taken up with young people with four-year degrees.

Many of whom, of course, are also coming out of college with very substantial debt burdens. The last point to make in relation to this is we're now beginning to see that young people with two-year technical degrees are beginning to out earn substantial numbers of those with four-year degrees. In the State of Florida, for example, the class of 2009, those with two-year technical degrees are out earning the average B.A. holder by about \$10,000-- coming out of-- you know, the-- the pack. Nationally, roughly a third of those with two-year degrees are out earning the average four-year degree holder.

RATHER

Let's accept—your argument, your hypothesis, if you will, that it's a bit of a mess. Who's to blame? Is it government? Is it educators? Is it parents?

SCHWARTZ

Well-- you know, it's hard to know where to start on this one. I do think-- we continue to-- have this kind of stigma that gets attached to anything vocational. And there are, you know, some historical reasons for that. I think-- for too long-- particularly in our cities, vocational education programs were kind of dumping grounds-- too often for kids that were seen as not having the academic ability or talent to go onto college.

So we need to restore the-- the balance. We need to continue to insist that all kids need a solid foundation of knowledge and-- and academic skills. But we need to open up some alternatives and other kinds of pathways for young people for whom sitting in classrooms is really-- you know, not the answer. We have about one kid in four who drops out of high school still-- before graduation. When you survey those young people and you ask, you know, "Why did you leave school?" two answers come back over and over again. "It was boring." And "I couldn't see the connection between what I was being asked to do in school and any future life I could imagine for myself."

I think if you ask, "Why does such a large proportion of kids in all those European countries that I mention opt for vocational education?" It's because I think by the age of 15 or 16, a lot of kids want to be in more adult settings. They want to be doing something that's a bit more applied. If you are bored sitting in classrooms and you are being told in the US "Well, you have to stay in school to graduate so you can go on and spend four more years sitting in classrooms." That's not a very attractive proposition for a lot of kids.

RATHER

What in terms of concrete solutions do you have? What steps can be taken?

SCHWARTZ

I'm involved in a program now where we're working with nine states. What we're trying to do is, you know, get employers to the table with educators. Design these programs that kids can start out in high

school, actually go back even further in-- into the middle schools to start figuring out, "How do we start to get kids better information, get more exposure to-- to the world of work?" so that over time, by the time they get to the middle of high school, they can at least begin to know what their own interests are and what kinds of careers are open to them.

The big point for me is this isn't about slotting kids into jobs that they're gonna be in for a lifetime. It's getting kids over that hump, from school, and launched into the workforce with skills and credentials, but also with a solid enough kind of academic foundation so that as-- as the economy changes and as their own interests change, they can-- they can move.

What I really worry the most about is the just, you know, rising numbers of young people-- who are now, you know, entering their early 20s with no work experience at all and whose prospects for the long term are really-- are really grim. And I just think not only for the-- you know, our-- our kind of social fabric, but-- but for our economic future, we just need to figure out a way to get many, many more kids connected to the world of work much earlier and help them get-- get launched. It's just not-- I mean, I think if you talk to German employers-- and you probably did. (LAUGH)

RATHER

We did.

SCHWARTZ

One of the things that kind of has hit me when I was there in-- in-- in 2010 was when you ask employers, you know, "Why do you do this? Why do you make such-- such an investment?" Yes, there's a kind of narrow economic self-interest. But there's also this sense that-- that there's a societal, a larger societal interest here. And that is that the adult society has this responsibility to help young people make a more successful transition from adolescence to adulthood, not just from-- from school to-- to-- to work.

It's accepted wisdom, you correct me if you think it's wrong, that one of the things that made the United States such an economic power, so economically successful is in the wake of World War II, with all the people in the military service coming back, our leaders said, "Look, we-- we can't have immediate jobs for all of them. So we passed this piece of social legislation, the GI Bill. Everybody gets to go to college that was in the service."

And that did two things. One, it cushioned the massive return of people back in the workforce. And secondarily, it gave us the world's best-educated workforce top to bottom, that's what propelled us through the late '40s, '50s, '60s, and made our economy what it is. Now when I hear you and others say, and I respect it, "Listen, this idea of everybody goes to college is not a healthy thing for us now." I'm having trouble reconciling that. On the one hand, this is what got us to-- our economic success. Now we hear, "Well, fewer people should go to college."

SCHWARTZ

Well-- that-- that's-- first, the-- the received wisdom is--is-- is actually correct. (LAUGH) There's no doubt but that the-- the-- the GI Bill, a massive investment in building a public higher education structure, enormously important. It-- it-- it really did propel our economy.

This isn't about college versus no-college. It's about what kind of post-secondary education-- do young people need to really be-- you know, to get started in this economy?

And the dream at least is that-- you know, if we could really build up our two-year system-- higher education system to play a much stronger role in workforce development and creation and really-- put more emphasis on-- you know, on-- on innovation and creativity, maybe this would help us rebuild our economy, as well.

RATHER (ON CAMERA)

Dr. Robert Schwartz. Now, when we return, we will give you a look at the German model with an American twist. Building cars and careers ... that's next.

ACT 5: GERMAN JOBS MACHINE

DAN RATHER (VOICE OVER)

FOR ALL THE EXPECTATIONS, HOPES AND DREAMS OF AMERICA'S YOUNG PEOPLE WHO GO ON TO COLLEGE, THE REALITY IS IT OFTEN BECOMES A STRUGGLE TO FINISH. YES, MORE THAN 70 PERCENT OF HIGH SCHOOL GRADUATES ENROLL....

BUT HOW MANY ACTUALLY EARN THEIR DEGREE? ONLY ABOUT HALF GET A DIPLOMA AT A FOUR YEAR SCHOOL WITHIN 6 YEARS... AMONG LOW-INCOME STUDENTS, IT DROPS TO AN ASTOUNDING 9 PERCENT.

WHAT HAPPENS TO THOSE MILLIONS OF YOUNG PEOPLE WHO ENTER THE WORKFORCE WITHOUT A DEGREE OR ANY EXPERIENCE? NOT TO MENTION BEING SADDLED WITH AN ENORMOUS DEBT...

IN SPARTANBURG, SOUTH CAROLINA ONE COMPANY AND ONE COLLEGE ARE OFFERING A GOOD EDUCATION AND A GOOD ENTRY-LEVEL JOB THAT SOME HOPE WILL BECOME AN AMERICAN MODEL FOR THE FUTURE.

DMITRY KOPYTIN MIGHT BE THE HAPPIEST COLLEGE DROPOUT YOU'LL EVER MEET. WHEN WE CAME ACROSS THE THIRTY YEAR OLD FATHER OF TWO, HE WAS LOADING THE PARTS THESE ROBOTS USE TO FORGE UNDERBODY COMPARTMENTS ON BMW'S HOT-SELLING X SERIES SUV.

DMITRY KOPYTIN, BMW EMPLOYEE

I go to work; I enjoy going to work because I learn something new every day. Knowledge is a very powerful thing, but if you can apply it to what you do on a day-to-day basis, it's amazing.

RATHER (VOICE OVER)

AFTER HIGH SCHOOL, KOPYTIN -- WHO IMMIGRATED TO THE UNITED STATES FROM RUSSIA WHEN HE WAS 17 -- FOLLOWED HIS CLASSMATES OFF TO COLLEGE BECAUSE ...WELL, THAT WAS HOW AMERICANS DID THINGS.

KOPYTIN

Back in the day that's what everybody was saying, you have to go to school to get a degree, you have to get a degree to get job, Because without a degree, a piece of paper, you can't get a job. That's what I was always told.

RATHER (VOICE OVER)

BUT THE TRADITIONAL CLASSROOM WASN'T FOR HIM.

KOPYTIN

Colleges here, you sit and you learn from the book. Even though they say it's hands-on training, all I get hands-on is "Here is a station and here is a book, make sure you read all of the book before you touch anything." I didn't learn anything. I can pass my test because I can memorize it, but as far as trying anything, I didn't learn anything.

RATHER (VOICE OVER)

SO HE DROPPED OUT AND EVENTUALLY FOUND HIS WAY TO BMW. HE EMPHASIZES THIS IS HARDLY FLIPPING HAMBURGERS...

KOPYTIN

It is a more fascinating field than I thought. More robotics, more automation, more troubleshooting that you can do here. It's definitely not McDonalds pay and not a McDonald's experience.

RATHER (VOICE OVER)

AND THAT'S OBVIOUS FROM THE PAY...\$50,000 - \$70,000 A YEAR...WITH POTENTIAL TO CLIMB TO SIX FIGURES.

AND THE 'BODY SHOP EXPERIENCE'' ISN'T ABOUT ELBOW GREASE AND HEAVY LIFTING ANYMORE. BMW'S 800 ROBOTS DO ALL THAT. WHAT BMW NEEDS THE *HUMANS* TO DO

IS MANAGE ALL THOSE ROBOTS ...SO IF YOU'RE A MULTI-SKILLED INDUSTRIAL MECHANIC...BMW WOULD LIKE TO MEET YOU. NO FOUR YEAR COLLEGE NECESSARY.

BUT TO LAND THIS GIG, DMITRY DID HAVE TO GO BACK TO SCHOOL...

KOPYTIN (AT GREENVILLE TECHICAL COLLEGE)

Do you want us to highlight the drawings as we go?

RATHER (VOICE OVER)

THIS TIME TO GET A TWO YEAR DEGREE AT GREENVILLE TECHNICAL COLLEGE

INSTRUCTOR

If you control the 240 volts, that would switch both ways simultaneously...

KOPYTIN

Okay

RATHER (VOICE OVER)

HE'S STUDYING ELECTRICAL ENGINEERING. HERE ATTACHING A TOGGLE SWITCH TO AN ELECTRIC MOTOR.

PROFESSOR

If you put your hand here and touch a live wire it is going to hurt

RATHER (VOICE OVER)

AND IN A MOVE RARELY DONE BY U.S. COMPANIES, BMW IS PAYING MOST OF THE TUITION.

KOPYTIN IS A QUOTE 'BMW SCHOLAR,' ONE OF 35 STUDENTS BMW IS GROOMING FOR THOSE MID-SKILL JOBS IT NEEDS TO FILL...ALONG WITH ELECTRICAL ENGINEERING, KOPYTIN IS TAKING A PRODUCTION TECHNOLOGY CLASS BMW DESIGNED. THEN IT'S BACK TO THE FACTORY FLOOR FOR 25 HOURS A WEEK OF PAID WORK.

KOPYTIN

So in the two year program we get a degree, we get on-the-job training, and combined so right now I'm taking motor control in school and what I'm working with three-phase motors. I come here to work and see three-phase motors, so same thing. So I can apply what I learned in school, I can apply here.

RATHER (VOICE OVER)

IT'S AN EXPERIMENT THAT'S ONLY TWO YEARS OLD...A HYBRID APPROACH TO THE GERMAN MODEL, BY TRAINING APPRENTICES IN COMMUNITY COLLEGES IN THE U.S. RATHER THAN HIGH SCHOOLS AS THEY DO IN GERMANY.

FOR GREENVILLE TECHNICAL COLLEGE, THE PROGRAM IS HELPING LURE STUDENTS FOR WHOM COMMUNITY COLLEGE ISN'T A MERE STEPPING STONE TO FOUR YEAR COLLEGE, BUT A DESTINATION IN ITS OWN RIGHT. AND IT'S NOT ONLY BMW...GREENVILLE TECH IS TEAMING UP WITH GENERAL ELECTRIC AND MICHELIN TIRE COMPANIES. SOUTH CAROLINA HAS BECOME AN EPICENTER OF THE MANUFACTURING RENAISSANCE...AND IT'S TECHNICAL COLLEGES LIKE GREENVILLE TECH THAT ARE SUPPLYING THE WORKERS.

MANUEL GONZALEZ, A 34 YEAR OLD FORMER NAVY MAN, IS ALSO A BMW SCHOLAR... COMPLETING HIS THIRD SEMESTER AT GREENVILLE TECH AND TRAINING TO BE AN EQUIPMENT SERVICE ASSOCIATE.

MANUEL GONZALEZ, BMW EMPLOYEE

I think it's just a position that can catapult you into many different directions, whether you be in engineering, whether it be working in the electronics specifically with the robotics programming side, or managing the production associates work in the line.

RATHER (VOICE OVER)

ALTHOUGH THERE'S NO GUARANTEE OF A JOB AT THE END OF THE PROGRAM, KOPYTIN AND GONZALEZ WILL HAVE GAINED MORE REAL-WORLD EXPERIENCE THAN MOST COLLEGE GRADS ..THEY SAY THEIR JOBS, FAR FROM DEAD END OR DIRTY, MAY GET THEM UP THE LADDER FASTER THAN THOSE COLLEGE-MINDED KIDS ANYWAY

GONZALEZ

So I think it's important for High School kids to understand that you don't go from high school to college, college to sitting on the board of directors for a company. I think a lot of those individuals eventually had to start from the bottom and work their way up.

KOPYTIN

I have friends who have four year degrees and they are bagging groceries right now...they can't apply for a new job because every company they apply they have no experience.

ACT 6: GERMAN JOBS MACHINE

DAN RATHER (ON CAMERA)

And that's our program for the night. Next week the other end of the spectrum. While many manufacturing jobs go unfilled, those who spend years in schools earning their PhDs are finding jobs almost impossible to come by. This is especially true for many of America's brightest scientists. We'll have an investigation into what is going on and I'll have a conversation with one of America's premier scholars and scientists, Shirley Tilghman, the president of Princeton University who says we are graduating too many PhDs in science.

SHIRLEY TILGHMAN,
PRESIDENT, PRINCETON UNIVERSITY

You have individuals who are 37, 38, 39 years old, arguably in the prime of their productive lives earning less than the median income of the United States, with a PhD.

RATHER

And a PhD in science ...

TILGHMAN

A PhD in science...

RATHER

If there are too many scientists and not enough jobs, is the big policy push to produce more scientists just bad policy?

TILGHMAN

Yes. I think it is bad policy and I think that it will ultimately be harmful to the enterprise in the long-run.

RATHER (ON CAMERA)

THAT'S NEXT WEEK HERE ON DAN RATHER REPORTS... UNTIL THEN, WE ALWAYS LIKE HEARING WHAT YOU HAVE TO SAY. SO PLEASE JOIN IN THE DISCUSSION ON OUR FACEBOOK PAGE, OR SEND YOUR COMMENTS TO VIEWER@AXS.TV...

FROM NEW YORK, FOR AXS TV, DAN RATHER REPORTING. GOODNIGHT.