

## Education Statistics 101 - Transcript

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good afternoon welcome to the education stats 101 from the FLP academy. we have Jenny Groom, E librarian at Connecticut state university and you can take it away.

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okay, well let me get my desk top open. what I'm going to do is I'm going to be running between PowerPoint and the live site. and because I found running it straight in the PowerPoint the links didn't open quickly enough. so my name is Jenny Groom, E I'm a reference librarian at the Connecticut state library. our coordinator Chris Avery you may know. I have been a coordinator before and I've been support staff in federal building in 1986. in the past I've also been an instructional librarian. what I want to say now, I know statistics I do not know data. we're getting into that. I want to make sure that people can see my cursor and that it's big enough and that if you don't see where I clicked, ask the folks in chat to have me redo it. so what we're going to cover, this is a very basic introduction. just general Government tools when you're looking at statistics for U.S. schools and education. we're going to focus on the department of education. quickly going to talk about data. we're going to look at the education website. we're going to the national center for education statistics which is part of the department of education. if there's one thing you come away with, come away with knowing national center for education statistics. then we'll talk about a few of the flag ship reference resources. there are more than we can possibly cover. and there are more in the slides than we will cover but I am going to see how the time goes and try and cover that. so the big thing, data versus statistics. quite often people use these interchangeably. not quite the same. the data is the raw information within a data set. when people are looking for statistics they're going to get bogged down with this huge set. and often as you can see at the bottom, quite often if the data set is available it doesn't have software to use. you have to have your own. but data can be analyzed and interpreted and then that's when you get to statistics and that's what we're going to talk about today. not so much about data sets but we're going to talk about statistics. this is one that data has been analyzed normalized and it's usually an analysis and a summary. often presented in charts tables and graphs. reported as numbers and percentages. and with that said, we are going to look at a couple tools today that will be pulling the raw data to produce statistics. so it gets confusing at times statistics versus data but we do want to talk about that. I'll go through this quickly as that is demographics or specific type of statistics describing a population and it's usually a sample and then presented as an AGGREGATE of the population. in case we don't get to this today, you're going to see yes the slides are available, they're available now. there's a link in the chat. and the slides will have additional screen shots that I have put in just in case my internet connection locked out. I'm skipping you're going to see the common core and there are two very distinct versions of the common core. it's a pretty well established database of public elementary secondary education factors. and that's what we're going to talk about. most people think about the common core state standards which is about curriculum. when they hear common core. that's not what we're going to talk about today. so I just wanted to quickly cover that when you see it show up why it looks different. so where do you start when you're looking for statistics? on education and you're looking for federal or state. well, you don't always have to determine with other Government information sometimes we do have to determine federal or state level. many of the education surveys are federal but administered by the State. they work together SXITS the same data so the State agents may have federal information and the federal information often has state so the other thing to think about is which agency runs a program. usually you want to go to that agency and look. so for example, the department of agriculture runs child nutrition programs but the department of education will pull from U.S.DA website to put into their data about school related nutrition programs. now we're going to go out to the department of education website and so this is it. EB.gov. what I want to point out is there's a lot of language. there's

information on student loans and information on grants. the laws that go behind it and data and you can see there's just lots here. one thing they have displayed here. this is a general page for all of the department of education. and you get different information. when you get to fast facts down here, when everyone can see my cursor. when you go to fast facts, these are national level usually and you can pick different school topics and look at the information that they are offering. however, so this is a great site I always think of this as a great site for the patrons. to go to fast facts. one of the cool things if we were to pick a topic we're going to have a question and an answer to the fast fact and we're going to have graphs and then there's usually related information. to get you into more detailed so you see common core and condition of education. so rather than using fast facts, back one more. went too far. so.

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sorry to interrupt but Jen can field is asking if you can switch to slide show so you don't see all the presentation just the current slide. .

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okay I will probably not go back to the slides then because doing it that way takes over my whole screen and I can't get back to the live website. I've been practicing all weekend and it just wasn't working well.

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okay. Jean, why don't you go to the link in the chat that has the slides in there. and then you can just watch the slides. .

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I don't know why the new PowerPoint doesn't play well but it really didn't when I tried to use it as a peer presentation and going out to the public it was slow and clunky so I apologize for that.

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what we're going to look at now is the national center for education statistics NCES. this is if you come way with anything today, know that the national center for education statistics is the first place to go. when you're looking for educational data. it's part of the department of Ed part of the institute of education and it is the primary federal entity for collecting and analyzing data and disseminating it. about education in the U.S. it's also part of the U.S. federal statistical system in the slides and in the library research guide that we have. so there's a link to that. the department of Ed and in particular NCES pulls from other federal agencies that are part of the statistical system. this is an independent nonpartisan agency. and really we're going to spend the rest of the time here looking at different aspects of NCES. the functions of collecting information and statistics goes back to 1869 with the congressional mandate. that says we made the department of education to collect information about the States and territories. and so it's going to be quite a bit of historic information. just hard to find for some of the items. so I just want to show they put their big topics and I'm going to look at the information. you'll see lots of acronyms. if I went to here and showed you their structure. it's nothing but an alphabet soup. so I'm not even going to go there today. but the page has lots of information and videos and they have a great youtube channel. and we're going to look at these here. when you look at publications and products, I personally find this page most useful if you know the title that you're looking for. and that's just me. but I don't find this the most helpful for an introductory level webinar. so I wanted to point that out. if you know your title you can put it in and do a search and you can do limits but I don't find that the most useful. one thing they talk about surveys and program areas. so they have a assessments and early childhood elementary and secondary so these different surveys and programs fall under different areas and yes, libraries. and when you're looking at those, one thing I have to say is the length of these annual reports has disappeared from when I first made the presentation two weeks ago. so I'm not sure how you get to it from here. didn't find the link but they have annual reports that are congressionally mandates and in these you're going to find topical areas you can look at and international but the three big ready reference titles. these were the three big titles that people used.

you look at the condition of education we're going to see this thing here that says that they're changing how things work. they're trying to make it interactive. it's not dynamic where you pick everything you want. still just going to get the charts and tables that are published in the document. but it's still easier to use. they're working to change all of their annual reports. the other thing is prime and safety used to be set and now it's part of the condition of the education. so what is the condition of education? condition of education is an annual summary of what's happening in U.S. education and we'll talk about what the most interesting topics there's going to be both charts and tables as well as text. so here's the report from 2021. rather than waiting for it to load, I have already opened it up. and here we are on Page 12. you're going to see that it's talking about what's been happening and how is the impact of coronavirus impacting education. then we get charts. so the condition of ENL occasion, the topics will change from year-to-year. because it's put into context. this is really what is current. what is happening as most recently. you will see that there's a little bit of delay in their years because that's major research. so the 2020 is still pretty recent. so this is what the condition of education looks like in print format. or the PDF. but they also let you explore by topic. I don't know if you saw where I clicked here. explore by topic. this is what I mean by going to be interactive but not necessarily dynamic. so you can pick what you want to look at but you're still only going to get charts in the report. this is not like the sense of sight where you can build your own tables. so you can see the information and summary. for people going through the more in depth, we're going to look at what is included or not included and with that, the condition of education it is basically what is the current state of education and with key developments at this point. go back to the annual report. actually we can just go back to the main NCES. the next thing we're looking at is the digest of education statistics. and I do believe since it's so popular it's on the gallery. don't know what's happening. I apologize I wanted to use this to get to here. we'll do this with the publications. the digest of education statistic. this will give you the publications as opposed to the landing webpage. the digest I'm going to skip over to the digest. this is just what it sounds like. it's when it's printed as a PDF, you pick the year you want and the book annual compilations there's an often coverage of pre-D through graduate school and there's often historic information found in the tables and it is one of the titles to remember. digest of ENL occasion statistics. most of it at a national level. if you want to look T the most current tables, latest version of the tables. the thing about the latest version of the tables is in order to get the tables up quickly they put them upright away. these may Z not all come from the same report. if we go back here and look at the reports, those tables may come from a couple of places. really cool some different topics and then you're going to pick elementary and look at historical summary. 1869 to 2018. so these are as you can see, these are not specific to the district or state. very much national level so this guide they do cover private schools as well as public schools. and not going to show every different type of table just trying to give you an overview of what is available. home schooling has been added over the last several years. it wasn't as included as much as it used to be. and that is the digest of education statistics. it's like an almanac. abstract there for education. and back to the annual report. the other significant one is the projection of education statistics and the projection of education statistics is just what it says. they go through and through the calculations they figure out what's happening and what's going to be coming up. so you can project what will enrollment be and what will the teachers be. what will the costs be? this is a really important document for planning. whether it be towns, federal, individual school districts to project what's coming is an important statistic to have. so before I go any further to some of the more interactive data tools, I want to know if there's any questions about these three major reference books. .

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Jenny I'm not seeing any questions.

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I don't hear anything so I'm going to close these out. I'm going to go back to the main page of the national center for education statistics and NCES. going to click on data tools the right here. this is where

the fun begins. there will be data sets in here. but these are tools that will let you explore the data without having the software. you don't need packages they're going to pull it for you so from here let's take a look at the public school. so we look at it and you're going to see it's pulling from the common core data. that's the statistical survey that gets all the questions and then they put it into the package here. I am going to look for the regional multicultural magnet school. there are some very good tips here. so we're going to do a search. so the first result here tells you when the data came from if data is applicable or not. similar searches we'll look at in a minute. with can modify but we're going to click on this school. and this district is learn. when researching you want to know the little quirks of your region. so in Connecticut there's no county Government. so when it comes to special school services we have these regional group and this magnet school. you will get information about the district. you will have links to the individual school. and school address, the grades covered. this ID here when dealing with grants like Walmart and Amazon and other corporations, they will often say you have to be with NCES in order to apply for one of our grants. having this school ID number is going to help you with your grant. if it's a private school you have to do a search in the private school data because common core is only public schools but this information is really helpful if you're writing for grants or asking corporations for money. then you can come down here and look at the enrollment information. racial break down. and who the schools and the counties. that is how to search for public school. now we're going to look at school districts. in this case, I'm going to look for rocking school strict so you don't have to put your state in. it will come up. so looking at the GROTTEN school district I'm going to click on SKOOMs for this district. and the regional magnet school doesn't show up yet they send kids to this district. that's when you have to understand the crazy miss of individual location that we are researching. so this is a quick summary. but where you really get the good stuff is the website but here is the district demographics. and when you get here you can quickly change your school district here. you're going to get information about the community. information about the community racial ethnicity. information about the children. the family of the children in the school districts. and again, GROTON is unusual. there's a sub base so there's times when a family is a two parent family and then for several months when one parent is out on the submarine it's a single family but they're all included here. so this is just wonderful quick overview of the district and then you can get more information and ACS is the American community survey out of the US Census department. so you can see that the national center for education statistics pulls from both other agencies.

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so look at the demo and when you search for private schools it's you can see a different survey. search for private school you can do it by religious affiliation. how many Islamic schools and not limited by state. we're going to see that this is Page 1 of 14. maybe we better modify the search. and add a state that we want. or if we want to include only certain grades. so these are all private schools in New York and we can get the same kind of information for the most part. may not get the dash board because it may not pull in the same way but here for the private school, here's the same number that you are applying for grants. those are one of the fun tools. and so now I spent some time to look at a few other topics. I want to find -- going back to their homesite. there's two terms for this. NAPP E, the national assessment of education progress. also called the nation's report card. national assessment so you can use the pull down number. the national assessment of educational process or the nation's report card. there's two different websites with two different URL's when your talking about the national assessment of educational progress you're talking about gathering the data getting the results and when you're talking about the nations report card is usually the report about it. and what is this? this is an assessment of what U.S. students know and it is usually administered to fourth, 8th and 12th graders in sample counties. so so if you want to look at the data, you can look at the TUP of questions the State profiles how the State is reviewing and you can even test yourself on this website. but we can also go to nations report card.gov. and this is a great way to get the reports and dash boards. this is really the

other side was really good for data sets and researchers and this is really great for the general public to get over. you will see the topics are varied. math, reading and writing are covered and then different years will cover other subject matter. and it's a sample. it's not everybody. such here, so at the jurisdiction. we click on that and we're going to see, I'm going to open up the districts and we're going to see that for this particular year these are the districts that were sampled. it's not every district every year. but you're able to look at what was proficient and which ones were not. while I find the nation's report card helpful, I tend to find searching school districts with the other data tool is more helpful. and I want to leave time for questions. the integrated post secondary education system for iPADS, THIS IS WHERE YOU WILL FIND OUT ABOUT COLLEGES, UNIVERSITIES AND TECHNICAL SCHOOLS. VOCATIONAL INSTITUTIONS POST HIGH SCHOOL. ALMOST EVERY COLLEGE OR TECHNICAL SCHOOL. 0001 Test test we have a lot of other AIDS with the other aides that is the other thing I wanted to point out. the higher Ed you can get into the information this way. and that's finding a college. this is using the data so researchers there's going to be an explorer that's going to help you pull information. you can look up a particular institution in trends. customize summary. so the preformat is you can look at -- so at no point will anything ever be at the individual level but you will get individual institutions. and I think the only other thing I want to do is point out kid zone. the kid zone has an educators corner to help educators use statistics and then there's some things for kids here. the kids can look at their own school. and you're going to see going to be either college or public school. the kid zone is trying to help people. it's okay. the only other thing I want to cover and at this point I will jump -- the additional resources no, sorry. the historic comparisons. so quite often people want historical information. and as we saw like in the digest of education statistics, you're lucky it's got the information right there. other times the same table will be repeated from year-to-year and you may have to go back to previous additions but you're looking for the same table and we want to always when it comes to citations you want to know your table number and table title. you also want them to find historic information. a lot of the online items do not go back before the early 2000's or mid 1990's on the department's website. sometimes you will need to get print copies and you can go to the library for help. just know that the functions of the national center for education do go back to 1869. and yes, back then I read a letter from the commissioner saying hey, there's isn't even a list of schools by state and territory. how are we supposed to get the statistics so in the early days they often pulled from the census. and added the promotion that way. getting your historical information sometimes can be harder. there are places where it is summarized and there will be a link to the State library research guide. where there's a book about the history of educational statistics for 120 years and that's the cut off year, it is not current but looking at statistical abstracts there's information there. it was originally published by the census bureau and in 2011 the census bureau stopped. currently you have to either by the hard bound version or have the progress databases. old census and American community survey will have educational information as well. annual reports if you -- I apologize. annual reports especially at the local level. often you will have summaries of the year's statistics. earlier reports can sometimes even include list of the teachers names and other information so when you're really having a day and you don't have access to a subscription data that might be one. congressional publications as you saw, they were mandates for the department of education so send your reports to Congress often programs are mandated to submit reports to Congress so you can get information that way. and the older congressional serial set volumes include annual reports from agencies and college. I'm just going to mention that, I don't really know about the commercial databases anymore because it's been many years where I worked where they have them.

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outside of the department of education, the census bureau has a whole section on education. you can get information from census reports and surveys. data.gov is a general data portal of data sets where you have got to do the manipulation yourself and not get the nice clean statistics. U.S.A.gov is a general portal about Government in the U.S. and it's really meant for the general public so it has a page about

the statistics and mentions statistical abstracts in the past. it's been wonderful. also GODORT -- Government documents round table from ELA has a research guide that covers state agencies DA bays so if a state agency has a database about a different topic, you can look it up by state and it's also a subject and so these are different ways to find information by the State. each of these pages is maintained by a volunteer and the volunteers have varying degrees of free time, just as the States have varying degrees of resources. so the pages will be different for each stage. that is the additional resource. I have links and these are guides that I've used in the past. there are other great research guides out there. these are just ones I happened to review in the past. and I know that we went over way more than we possibly could cover. and take in and remember but I guess I want to know if there are any questions to go by. and if this happened again, would you rather have fewer -- I just left my computer screen. there it is. would you rather have fewer resources in more detail or was this okay to just learn the names of resources for you to explore? again, if you leave with anything, know the national center for education statistics con of education, digest of educational statistics and then depending upon your library patrons, either the upper higher end IPEDS and the search by district. so I just was really geared for people who don't know hardly anything so I really just tried to give you a taste of what's out there. and there's a lot out there. a lot more out there. .

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there's a research guide at the Connecticut statewide library that's up.

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Jenny I shared that in the chat. a little earlier. so it's in there and we'll also have it in the archive. when you get a link to the recording. let's see, so far we just have comments. oh, okay here do you have a recommendation to send future teachers to learn more as they prepare for their career.

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yes, let me get back to you. the main department of education website. so teachers getting prepared are going to want to look at their state. look what the the State is requiring. but there are also down here on AB dotGOV, there are I know it's in here. just not easy to find. trans forming teaching. these are reformed. becoming a teacher action that's the one I was trying to find. and I had to say, I had this guide all set and then we were telecommuting and I didn't have a very good connection so I postponed it and in the meantime, we revamped the page so I had to relearn it quickly but here, why is that Connecticut, it shouldn't be. so I'm going to say no I don't have a suggestion. I know that a few months ago the website had a great section on getting that. I don't want the archive so .

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Jenny Pamela isn't seeing a website. are you sharing your screen?

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oh my gosh. sorry.

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there you go.

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okay, I apologize. but it's also good because you didn't sea when I kept not getting the right resource. because they moved things so EB . looking at this state, each state has different information and different requirements for teachers so this looks more like the report. there used to be -- I have to apologize because used to be more information about getting ready for becoming a teacher. the other thing I would recommend for teachers is when they're looking to apply for jobs, when you're a new teacher you will take what you can get but using the search for the institution, this one looking for school district information I apologize I don't have that necessarily.

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any other questions?

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I don't see anything yet. I shared the link to the guide again. and I mentioned in the chat that Jenny asked we add questions specific to the content so when Kelly sends out the link, be sure that you take time to complete the survey. it's helpful to Jenny for planning future webinars. Thanks.

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and there were good comments in the chat about it's great to have an overview but also some detailed so I have to say, I've never talked where I just lectured before. for me, it's always in person hands on interactive and everyone is trying to discuss it. this was a big change for me. and I thank you for the opportunity. I hope I didn't overwhelm you. with too much information. .

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Kelly is just sharing the link to the survey. so this is the last call for questions. if anybody has any questions they want to ask Jenny now is the time.

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here's my email. and again I'm not a data specialist. no statistics. not the one for data sets and big manipulation kind of things. and I thank you for this opportunity. I'm going to give it another minute and take this down so I can look at the chat. .

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Jenny I think we can wrap this up. no more questions. thank you so much for sharing this information today.

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thank you all. and I just want to quickly before you end everything, I want to quickly look at the comments.

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thank you all.

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Thanks so much Jenny. we appreciate your expertise today.

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thank you. bye. [ event concluded ]